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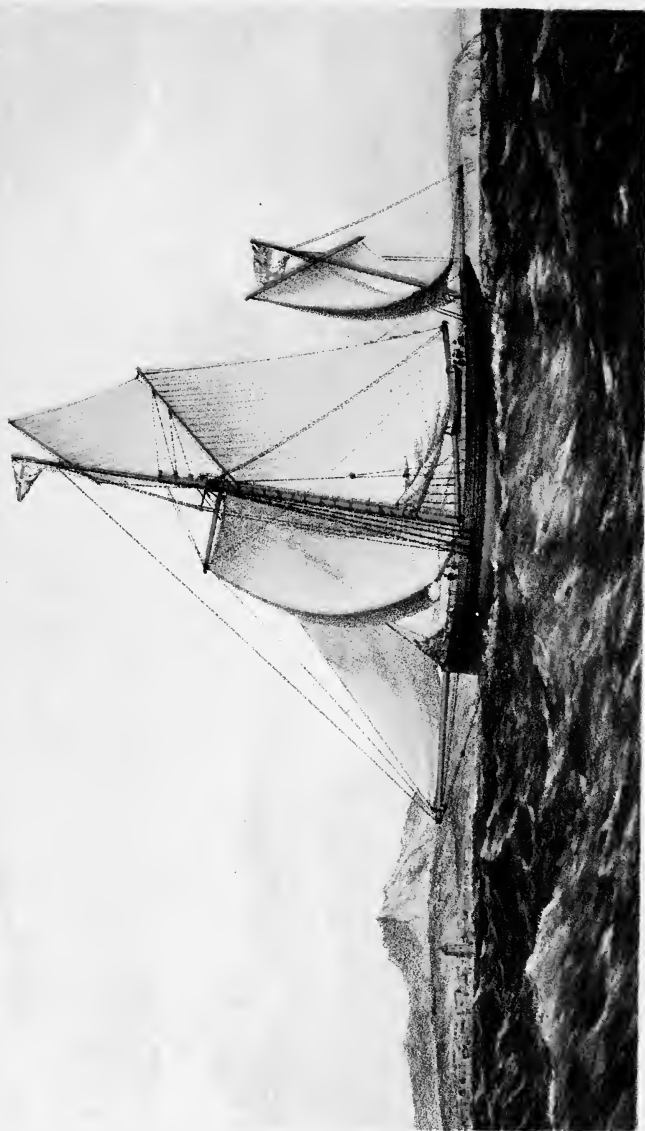
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David Scott Limited Lith.

MIRANDA, R.Y.S. 93 TON. J. GRAY Esq.
OFF TAPIFA

LETTERS HOME

FROM

SPAIN, ALGERIA, AND BRAZIL,

DURING

PAST ENTOMOLOGICAL RAMBLES.

BY

THE REV. HAMLET CLARK, M.A., F.L.S.

LONDON :

JOHN VAN VOORST, PATERNOSTER ROW.

MDCCCLXVII.

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INTRODUCTION.

A BUNDLE of old letters of mine has recently revealed its contents, the perusal of which has lightened the wearisomeness of a sick room. I am asked to allow them to be published. The following pages are sent to the press for the most part exactly as they were originally written, much that was only personal, or that had merely a family interest, being omitted.

The series is not complete; letters from Malaga and also from Brazil are missing; and unfortunately, by a most untoward accident, the whole of my private journals for several years, together with many MS. notes made on these and other expeditions, have been destroyed; so that to supplement these letters, or to add to the too meagre notices of natural history that they contain, has been made impossible to me.

The letters are for the most part addressed to my dear lamented father, the late Vicar of Harmston, Lincoln; one of them is to my friend Dr. Power, well known as being among the most eminent of British Coleopterists; two are, with the kind approval of the Editor, reprinted from

the pages of the 'Zoologist,' to which periodical they were originally sent as a contribution from Brazil.

The lithographs are copies of water-colour drawings made by my friend and fellow traveller John Gray, Esq., during our rambles together, first on board his yacht, and then in the province of Rio Janeiro, and are selected from his portfolio.

I am amply repaid for the work of conducting through the press this unpretending volume by the happy reminiscences of much innocent enjoyment which its contents have suggested, and which have had power often to charm away for the moment bodily suffering. I shall be more than doubly repaid if they should prove the means of suggesting to any the value of NATURAL HISTORY, either as an unfailing recreation, or as a more scientific pursuit.

H. C.

Rhyl, Easter 1867.

LETTERS,

&c.

R.Y.S. 'Miranda,'
off Hythe, Southampton,
April 24, 1856.

MY DEAR FATHER,

Here I am, in what will be, I am sure, a very pleasant home for the next month or two, as pleasant as it is now strange. I can hardly realize my present existence; everything around me is not only a complete change from my work at that ant-hill Northampton, but it is something entirely new to me, and very charming.

On Tuesday night we mustered at the Cottage a large party: some of us, I among the rest, slept on board the yacht; Gray filled his bedrooms on shore and sent the rest of his guests to the hotel. Before 7 A.M. all were on board, when we weighed anchor; but early rising for once did not pay: we weighed anchor, and spread no end of sail, and whistled; but there was no wind! not a breath. It took us more than two long mortal hours to do a mile; there were at least eleven miles of space to cross before this end of the great fleet at Spithead could be reached, and more than *twenty miles* to the other end (which was

tw

our programme, wind and weather permitting); and the Queen was to leave Portsmouth at eleven o'clock! We were in despair, and gave up all hopes of seeing anything after all, notwithstanding Gray's arrangements: but good fortune came to us at last; a handsome-looking steamer from Southampton, crowded with visitors for Spithead was passing us, when suddenly she stopped her engines opposite us, and somebody on board sang out, "Get out your hawser." The steamer was the 'Rattler,' from Liverpool, chartered by Liverpool men come over to see the Review; and on board of her was Gray's brother and one Colonel Blackburn, and others who knew Gray: they steamed round us, took the end of the rope on board, and away we went behind them at the rate of 10 or 12 miles an hour—so fast that the yacht's gig towing at the stern, had it not been a lifeboat, would have sunk; as it was, it was half-filled with water, and seemed as much below as above the surface. Well, we were going on right famously, when all at once a chorus of voices from the 'Rattler's' stern sang out, "Your hawser's broken!" and so it was; the rope seemed strong enough for anything, but it could not stand the pace. However, these splendid Rattlers did not desert us, for it was a dead calm; they let us get a still stronger cable out, and took us in tow again, past Calshot Castle, past Cowes, past Osborne and Ryde, *along the whole length of the fleet*, some 8 or 10 miles, past the gunboats, the mortar-boats, the floating-batteries, the frigates, and, lastly, the grand men-of-war. As for describing the sight, I cannot; I never saw such a spectacle before, and never shall again: nay, I suppose such a sight never was seen before by man! I hear (for people round me

are better up in naval history than I am) that the nearest approach to it was in about 1790, when Lord Howe's fleet was gathered here: then the sight was grand; his line of ships extended nearly from Spithead to Stokes Bay, about five miles! but now we have *two* lines of ships, and stretching right away to the Nab, more than double that distance! while on either side of them are ranged in groups gunboats, mortar-boats, &c., to be counted by hundreds! Nothing so much impressed me with the power and the vast resources of England as the gunboats; they were long past counting, stretching away for miles, packed together as if even this grand anchorage were too small—and all built within the last year or two! Well, when we got to the *last* vessel of the Fleet, the good 'Rattler' said good-bye to us: a nice steady breeze was blowing; we worked to windward so as to be out of the clouds of gunpowder-smoke when the saluting came, and to be exactly opposite the harbour (Portsmouth) when the Queen's yacht should appear. We were but one of a dense group of beautiful yachts, looking all the more beautiful by their contrast with the grim stately men-of-war, like a bevy of graceful girls hovering round an army of giants. At last the Queen came: distant thunders of the shore batteries told us of her approach; quickly her yacht glided into the open, and then at a signal from the flagship (the 'Duke of Wellington') each man-of-war, or rather each vessel, thundered out its hoarse greetings. We were well to the windward, the immense volumes of smoke rolled away *from* us, not to us; but we heard as much as any one of the awful roar of the guns, like vast deep pedal pipes of an organ. Then the Queen passed rapidly

down the line, just in the same course as that of the 'Rattler' and our tiny 'Miranda,' each ship manning yards (a beautiful sight) and the men cheering; then she passed up *between* the two long lines of vessels, this time more slowly, and waited when she got opposite the flagship with the other three-deckers, either to visit the flagship, or, as some suggested, to pay courtesy to a French frigate lying close there. This was the time for our luncheon, we still remaining with a hundred other yachts well to the windward. After an hour's interval the Queen's yacht stood out; but this time she was not alone, all the vessels had their anchors up, and the Queen went forward at the head of her whole fleet. They all steamed in grand procession to two pivot-ships lying two miles further out, rounded them, and returned in a parallel course: the Queen was foremost, in the centre; on either side of her and behind her were her leviathan body-guards; so in the afternoon we were enabled to see the whole fleet under steam, just as in the morning the 'Rattler' enabled us to see it at anchor. But now it was getting calm, the wind was sadly going down; the ladies on board the 'Miranda' began to speculate as to how and where they could spend the night; so we turned homewards towards Southampton Water, and did our best to accompany Her Majesty *en route* to Portsmouth. Then came the second general salute (grander to us even than the first), and the Review was over! the Queen was gone! the fleets of monster passenger steamers were following her. Now for home at Hythe: the large square sail was set; we began to get tranquil, and recapitulate one to another the glorious sights it had been our privilege to see. Dinner is

announced for seven ; it is supposed that we shall get home to Hythe somewhere about midnight, when at last calamity seemed to overtake us ! we were aground ! indubitably, hopelessly ! The unhappy mate had taken the wrong side of a certain buoy, and for a whole hour we stuck fast in the mud, until the men with warps and the rising tide set us afloat again. But meanwhile the wind has dropped, and it is now a dead calm ; so sails are furled, and we drowsily rest at anchor, and rest pleasantly enough too (ladies' fears notwithstanding), in the middle of the whole fleet just opposite the harbour. And now came, indeed, the finest sight of all—a sight we should entirely have missed (as did nineteen-twentieths of the sight-seers) had it not been for that lucky blunder of the mate's. A signal-rocket was fired from one of the ships ; we all were on deck in a moment, and then, as if by one act, every ship in that vast fleet was illuminated so as to turn night into day. It was 9 o'clock gun-fire : blue lights burned on every yardarm and at every mast-head, every port was thrown open and burst into a blaze, and then came a distant subdued roar—the cheerings of thousands on shore and the responsive voices of tens of thousands afloat. For an hour bouquets of rockets from the different ships eclipsed the stars, and rained down golden rain ; but when all was over, when the last rocket was fired, and the ladies began to feel chilly and to nestle themselves for the night in the different cabins below, and the men began to look for their cigar-cases, and to make preparations for a night on deck, then the wind, like a good-natured friend, got up again. It had waited just to give us the illumination, and now was ready to give us a help home ; so we up anchor,

threaded our way through the fleet, and got here about 4.30 A.M.

Thus the day has been a thorough success : our last misfortune was the best thing that could have happened to us ; we saw everything that was to be seen (by night as well as by day), and returned home just when it was quite safe to move, when all the fleet was at anchor and all the giant steamers at Southampton or at Portsmouth. Our feeling this morning is that we have seen as much as, under the most happy auspices, it was *possible* to see—far more than any one could have seen on board of any of the men-of-war.

And now good-bye to our visitors, all are off with bag and baggage ; and we, too, are off as soon as possible. But as our expedition is to last for weeks, it is likely enough that there are matters still to be attended to, and we may not start till to-morrow. I will write again before we finally leave. Much love to all.

I am, my dear Father,

Your very affectionate Son,

HAMLET CLARK.

R. Y. S. 'Miranda,'
off Cowes, April 26, 1856.

MY DEAR FATHER,

The workmen have nearly finished, and we are off in an hour; the wind is brisk, but right ahead, dead against us. However, Gray is bent upon a start, and so am I: we may perhaps put into some Dorsetshire bay this evening, and work across for Ushant in the morning. It is impossible at this moment to forecast any plans: the season is advancing for entomology, and we both are anxious to get into the south without delay; so *if* the wind changes and is fair, north or north-west, instead of south as it is now, it may be better to run right away to Gibraltar, or even Malaga at once, or, should the weather or wind be unpropitious, the north of Spain for a few days would be better.

Yesterday I added to my outfit a macintosh, the most necessary perhaps of all garments on board a yacht; and I had actually not thought of one! I found the value of it last night; it made me independent of a heavy shower of rain. Our hours on board are, breakfast 9 A.M., luncheon *ad libitum*, dinner at 4 P.M., tea at 8, and bed at 10. I am already very much better in health than I was when I left Northampton, so much so that I quite hope to be *strong* when I return. This life is a most pleasant one for a season, but a sadly idle one; it is *necessarily* idle, you cannot work, whether you desire to do so or not. I like my host Gray; he is very quiet and delibe-

rative, solemnly contemplative, and, as to good nature and attention, a thoroughly good fellow : though he professes not to smoke himself, he is good enough to tolerate it, or even to enjoy it from others ; so I prophesy that he will do.

I do not suppose that I shall be able to send off a letter again for some time : as I said, we may land either at extreme north or extreme south—*anywhere* in Spain or Portugal. I fear, however, that entomologically our trip will not produce much of value. Be sure that you do not underestimate entomology : you cannot *overestimate* it ; it is invaluable as being a healthy and intellectual resource at *all* times and under *all* circumstances ; it takes a man into the country instead of into the town ; it makes him love the woods and meadows better than society ; it gives him health instead of tempting him to late hours, and makes him independent of pocket-money instead of robbing his purse : it has *one* drawback, I confess, it is too excellent and fascinating ! There must be always with regard to it (just as with other kindred studies) a tendency to give it too much of one's time, and to let it absorb one's interest too much, to the hindrance of one's proper and more serious vocation ; but, then, surely that is not the fault of the *subject* !

As to Bibles and tracts, I have taken none with me whatever, except my own Bible,—and that not by accident, but designedly, not because I forgot my clerical capacity, but because I did not quite see my way. I mentioned it to F., and he seemed quite to agree with me.

Touching other matters in your letter before me (my future sphere of work, town or country ?) *I* am more

catholic still and have no objection to make it a question of England or the antipodes. There is nothing outside dear old Harmston home that tempts me much to stay in England: men are wanted everywhere, the sun shines everywhere; I am open to anything: but I don't want to think of this now; "nunc est ludendum!" Please God I get safely home again, we shall, I trust, have many an opportunity of talking it over together.

You must none of you be the least anxious about me. When the wind is blowing your chimneypots off, no doubt it is a wearisome dead calm with us poor fellows, who sigh for your privileges; and Gray says our crew is good, all picked men, known to himself or his captain. My best love to all. May a good Providence have us all in keeping.

Always your affectionate Son,

HAMLET CLARK.

R.Y.S. 'Miranda,'

Wednesday night, 10 P.M., April 30, 1856.

Eve of Ascension Day and of May Day.

Inlet of Barquero, lat. $43^{\circ} 47' 45''$, long. $7^{\circ} 35' 30''$.

[Spain, north-west corner, 20 miles N.E. of Corunna.]

MY DEAR FATHER,

What with a lively sea-boat and a lively stomach, this is the first opportunity I have had of writing. I sit up to-night for the purpose of doing so, with the hope of posting a letter either in this neighbourhood or at Corunna. I have been quite unable to write before; my head wants steadiness when the 'Miranda' is dancing.

Let me begin by assuring you (this time from a small fragment of experience) of the steadiness of everybody else and everything else on board; the yacht is dreadfully seaworthy, not the ghost of a chance of an interesting adventure in the shape of a shipwreck. Gray does not seem to care for that sort of thing; and so his captain is wide awake, and his crew as lusty and clever as they seem respectable; humanly speaking you have no more cause to fear for me than if I were all the time at Harmston. Vessel, crew, and captain all have been somewhat tried, and all have given proof of their excellence.

My last letter, I think, was dated Cowes, and was sealed up as the men were getting up the anchor, and sent off on Saturday the 26th. We started with a fair tide; but a strong wind right ahead teased us, so that we had to tack (that means go every way but the right way) up

to the Needles. We passed close by Alum Bay, which I had never seen before; but before we had got two miles into the Channel the wind dropped, there was a complete calm, and we were helplessly drifting for many hours, just as tide and current willed. Of course the results, as to myself personally, were important and material; every one has to do homage to King Neptune. Then I lay down in my berth, and shut my eyes, and got into a semi-dreamy state, and wondered why Gray *would* stand sideways against the wall, instead of on the floor like other Christians, and declined all manner of food; and then I began to count the different noises—above, on deck; below, my own traps at high jinks in lockers—around, the swash of sea, and talking of mysterious mortals, and creaking of mast and pannelling: and yet none of it had anything to do with me! I was supremely indifferent, and perfectly willing to go to the bottom to please any one! and then I discovered that just above my berth a tiny leak in the deck had created a drop of water which kept migrating backwards and forwards at the lower edge of a beam, just like the oscillations of the bubble in a spirit-level, in obedience to the sway of the vessel. This began to be quite interesting to me; I had to notice the average duration of its life, to speculate on the different points which it would reach by the varying deflections from the horizon of the joist, to discover its invisible birthplace; its *end* was somewhere on my body, but that did not matter in the least; and then there would appear another baby drop, the sport of circumstances just like me, which lived its little life of ups and downs, and then vanished into splash! All this I saw in my dreamy state,

half fact, half fancy ; and then I came to a better mind, and could look about and enjoy the wonderful sight of Gray eating his solitary dinner ; his table, occasionally at any angle you like with the horizon ; its upper surface mapped out into deep ledges, put up all along to box up dishes, glasses, &c.,—my friend, severely anchored by one of his legs round a table-leg, and left arm stretched out as a purchase on the table-side, eating and drinking just as if there were no such thing as sea-sickness, and positively enjoying food ! And there was I feebly looking at him, with half-closed eyes, from my berth. How small I felt ! In a few hours, however, I got the better of my trouble, and began to take some interest in what was going on, and to be hungry. Since then the worst of my sea-sickness has been that I have been obliged often to go and lie down, and, though ravenous and in all other respects perfectly well, not daring to eat more than a very little at a time. To-day I have been much better, and to-night have had a most hearty supper of bread-and-butter, a Yarmouth bloater, and a huge basin of cocoa. Well ! to return to the Needles. Early on the morning of Sunday the wind took compassion on us, and veered round. We ran past Portland, Teignmouth, Torquay, &c., and about 3 P.M. were off the Start. Thence we shaped our course for Ushant on the coast of France, which was wanted that we might see our way exactly across the vast Bay of Biscay. We sighted Ushant, distant 10 or 12 miles, on Monday morning ; and from that time till one o'clock this morning the wind was so favourable that we carried the big square sail. During all this time I was getting somewhat better and better each day ; and I began

to fancy that the ominously reported Bay of Biscay was, like other bad things, not so bad as it was painted; for there were no vast long rolling waves, no wind except what was moderate and in our favour, no storms of rain, no "Biscay weather" at all; on the contrary, we were (at least I was) getting more and more jolly every day. We were in a warmer latitude, could sit on deck without extra wraps, and the wind was propitious; never had we hitherto been a mile out of our true course. But, alas for the transitoriness of all human enjoyments! Early this morning the wind suddenly chopped round, and blew dead in our faces, and the sea began to get up, and the sky predicted squalls. We were in sight of the high Spanish coast-line, and were working for Corunna: after a solemn contemplation of charts, barometer, compass, &c. it was resolved not to make for Corunna—we could not, by any chance, reach it that night, and we should have to lie by till morning (which meant make every one on board uncomfortably damp and tired),—but rather to run off to the left, and try and reach some more easterly harbour, where we might cast anchor and be cozy. All this time the sea was rising, the wind was getting into a passion, and sudden squalls became more frequent and more severe; so double-reefed mainsail; then, after a time, took in usual jib, and set up storm-jib, a small and very stout little sail that looked as if it could laugh at a tornado: still the wind rose, and still the barometer went down; then the men took in foresail, so that we carried only double-reefed mainsail and storm-jib.

And now comes another bother. There seems to be no end of charts on board; the Captain says he has every-

thing; the latest books of sailing-directions are being diligently thumbed by dripping hands on the cabin table; but we don't quite see our way! we know exactly where we are; but the weather is hazy, and the slashing wind cuts off bodily the tops of the waves, and drives them (spray and rain, almost a deluge) furiously in our faces; we are soon as blind as we are wet; we can't see. Here, in sailing-directions, there is a little shelter-place just the thing for us, and just about here, but we can't find it; all we can do is to challenge the storm, and to fight along yard by yard, keeping as near the land as we dare. At last, just before it was too late, and when the Captain had almost resolved to run out, and make sure of a safe night at the expense of a fagging one, somebody discovered the narrow entrance to the bay in which we lie now. It was not easy to work up to it right in the teeth of the storm, and not quite the sort of weather in which, with adverse wind, to enter a narrow opening. However, we tried; and to try was to succeed, with just one failure—she missed stays once. The bay is a little arm of the sea about a mile deep, narrow, and sheltered by high hills close to the shore; it took us some time to work up this narrow passage, but we did it, and put a bold cliff between ourselves and the wind, when at last came the pleasant order "get ready anchor;" and then "let go anchor;" and here we swing from two anchors, safe and quiet. Gray has just given the Captain a couple of black bottles, which the Captain cuddled up tenderly one in each arm, just as if they had been babies, and vanished with them down the fore-castle. I guess rum for the crew. And now the Captain, after, no doubt, his nightcap, has *turned in*—a

sure sign that everything is secure ; but certainly the wind was almost a hurricane ; with our diminished sails we were often gunwale under, and shipping green seas ; Captain Dyer said he never was out in such a sharp squall before. There is a technical name for these gusts—I can't remember it. They come down the mountain-gorges as through a funnel, gathering strength as they go, and tearing up everything in their path ; and then they lay hold of the waves, and twist and twirl off the tops bodily, sweeping them along as if they were so much smoke, twisting and curling it about like vapour. I wish I could give you a picture of the scene ; it was very wonderful and exciting : one rejoiced to see the good little craft fighting such a plucky fight with its enemy. Even now, sheltered as we are, the wind is pouring down upon us at such a rate that the ' Miranda ' dances about as if she were alive, while the howling and whistling of the wind, as it turns every rope into an Æolian harp, make appropriate music.

I have just been on deck for a look round, &c. A steamer has, like us, run in for shelter, and is anchored close to us, with two anchors out. We went forward to have a look at the strain on our cables ; it is nothing at all, the cables seem to hang almost slack. The *water* is quiet ; and so long as this is the case, the worst the wind can do is to howl : it is the *swell of the sea*, lifting a vessel bodily away from the holding-ground, which is the test of an anchor ; it then might have to bear the whole weight of the vessel. Here behind the mountains we are safe enough.

The bay, as we came in, was very pretty and interesting. On one side, sheltered from the north, was a clump of poor-

looking hovels huddled together; these human pigsties give a name to our resting-place. Above them are what I take to be vineyards: just immediately above us was a poor man digging the corner of a little field; but very bad digging it was, for, as I made out by the glass, he left it as green as he found it. Ford describes all this strip of country as very poorly cultivated and thinly inhabited; all round the bay are high cliffs, more or less dotted with patches of green; for twenty miles along the coast it was just the same—want of sinews and want of capital.

Now I must go to my berth, for I wish to be up in good time in the morning; in fact there never is a chance of sleeping here after 5 A.M., when the men turn out to scrub decks. To-morrow's wind and weather will decide to-morrow's programme; it may be that I shall not be able to add more. I conclude, as I began, there is no sort of reason for nervousness for us; the yacht has been tested this afternoon, and was more than equal to severe work. I only wish some of you were with me!

I am, my dear Father,

Your very affectionate Son,

HAMLET CLARK.

Thursday night, May 1.
At anchor, Barquero.

We have had a most enjoyable day. After a quiet night, interrupted only by the music of the wind and the tread of the solitary watch on deck, I got up at six, and went on deck to inhale the pure fresh air of the land; it was indeed pleasant. At eight o'clock (the commencement, it would seem, of the maritime official day) we hoisted our colours:—ensign, a red cross on white ground the white ensign of Her Majesty's fleet, the squadron colours; and the burgee at mast-head, a little flag, St. George's cross with crown in the centre. Ever since sunrise the crew have been hauling at ropes, hoisting sails, and hanging them out to dry. At 8.30 came the first visitors to the 'Miranda' this cruise,—pratique officer to see our "bill of health," custom-house officer to see that we are not smugglers in elegant disguise, and some other swell official in wonderful uniform: ten or twelve sailors rowed the boat, all very dirty and sallow-brown and haggard; their language was the purest patois ever spoken by Christians on the verge of civilization, and ours most unmitigated English; so, of course, we could understand not a single word of each others' talk. What is the reason why, when a person speaks to another in a language which he knows the other does not comprehend, he invariably shouts? We made up for slowness of tongue by liveliness of gesticulation; the Captain invited all three on board;

and Gray being in his cabin, I showed them all over the vessel, above and below, and enjoyed their unmistakeable wonder; they must touch and turn over and chatter over everything! The thing that pleased them most was a portrait of our Queen, which Gray has hung up in the place of honour over the fireplace; they got round this, inspected it on this side and that side, far off and near, and chattered over it like schoolboys. They went; we lustrated the cabin by opening windows, and then sat down to breakfast, our talk of course being of the marvels of insects we should see, and the different chances of divers tracts of shore supplying good and rare beetles. The yacht's gig was got out, we filled our pockets and wallets with the needful apparatus and luncheon, and set off on our *first ramble*. The bay terminates on either side with rocks, bedded in a shore of the purest white sand; two narrow streamlets run into the sea through the sand, the abode of Steni, Dyschirii, and other thirsty beetles: all the sides of the rocks are clothed not so much with green as with flowers—some that I never saw before, some that I recognized as allied to flowers not despised by English gardeners (squills, mignonette, and others); I unhung my wallet from my shoulder, and incontinently gathered a big bunch, though I knew I should have to throw them all away; I only wish I had a few quires of Benthall's drying-paper with me, I think I could bring home a pleasant souvenir of the Spanish flora as well as fauna with which to delight myself when I am getting old: we two admired all these, standing still among them, and slowly creeping about, basking in their beauty, like flies on a sunny wall; and then we worked inland. A good many beetles turned up, and several that were quite

strange to both of us, and a few spiders for Mr. Black-wall. We got among the vineyards, little scrubby patches of ground, evidently the care of poor men, straggling up and down the rugged hillsides: the vines are trained on heavy horizontal trelliswork three or four feet from the ground; and under the trelliswork we often got splendid sweeping among the herbage with our nets, on hands and knees. At one time the natives came out and caught me at it, when I found out by their vociferations and a somewhat rank smell that I was prostrate in the midst of a bed of garlic! I soon got out of *that*, and came and had a look at them: two or three modest pretty-looking girls enough, but the majority old men and old women frightful to behold, wrinkled grotesquely and dark brown like dirty parchment, noses across their cheeks, and mouths only stopped in dimensions laterally by their ears; the young are very nice-looking, but as soon as they get old they are very old indeed. I went on to the mite of a village by a wind-about foot-road, with stream sometimes on one side sometimes on the other but generally in the middle: such an apparition of a pig met me! gaunt, thin-legged, mangy, long-legged, narrow beast! I gave him a good kick, and he was up one side of the wall and down the other in a twinkling. From pigs we proceeded to cottages, little white-washed cabins; I *could* not understand them, which was door, which window, and which chimney: our conviction after some research was that most of the natives were inspecting us out of their chimneys, and that windows and doors were one and the same thing. If — or — were with us photographing, they would find any amount of queer costumes, faces, and bits of cottage life:

one child I saw awfully dirty, but quite a beauty, large inquiring eyes, dark-brown broadly oval face ; I gave it a bit of biscuit, which vanished in no time : so you see the young ones are not afraid of me. It was holyday in both senses of the word, being Ascension Day ; at least no one seemed to be doing anything, but enjoying a good stare at us and our odd ways. At 3 P.M. a little church bell began to tinkle for mass ; no one stirred : it tinkled louder and more fiercely, as if it said " Why does not one of you make a move ? " Still no one went ; all stayed lying on the ground looking at me : I sat, or rather lay, on the opposite bank, carefully poking up the ground, and looking at them : I fear the parson had but a poor gathering ; if I had dared I should have liked to have gone inside myself ; but I was very ignorant, and a heretic : who knows whether they might not have driven me into the bay ? Gray was all this time at the other end of the village " doing " the church in water-colours ; he said that *he* had all the population. I wonder what they all thought of us both, two whiskered creatures in strange garb, with bottles slung to their button-holes, bunches of wild flowers in caps or hanging at buttons, in their hands queer unknown machines of nets, solemnly investigating and shaking out their rubbish-heaps and poking up their garlic-beds ! " Verily these English *are* mad ! " such would be their verdict. However, they were very civil in their fashion, and so were we ; they permitted our rambles, and we in return made small presents of tobacco and other foods. While we were on shore the captain had to receive another set of visitors on board ; a boat full of girls came off—" ladies, sir, but rather of the rougher sort," as Cap-

tain Dyer called them when we got back; he had to show them over the vessel like the others, and then showed them over the side. Evidently the 'Miranda' is making a sensation, and our bunting is not absolutely thrown away. But I must tell —— about the ferns: I found such a lovely grotto, too good for any place but Paradise, a cave about as large as Harmston drawing-room, on the sea-shore, hollowed out by waves!—who can say how many ages ago? One side of the cave was open to the sea, the others damp with trickling threads of water: and round the edges and dotted about in clumps on its walls were such beautiful ferns:—*Asplenium marinum*, with fronds a foot long; a giant species of maidenhair; two or three other species, smaller; two or three delicate *Cistopteris*-looking things; *Osmunda regalis*, magnificent in wealth of fronds, &c. &c. I counted eight or ten distinct species, all but one or two un-English, and all in such perfect beauty and luxuriance of growth. I could only sit down in the cavern and gaze at them with all my eyes.

The wind is getting round; so instead of staying here to-morrow, as we had proposed, we shall probably start to-night for Corunna; I will post this letter there: you will excuse it if it is not sufficiently prepaid, for I have as yet neither Spanish coins nor knowledge of Spanish ways. Corunna is nothing but Spanish, Vigo being the commercial port; so we must take our chance. I shall be glad to get away south to Malaga, &c., as soon as possible; for evidently the season (not the London season, but the beetle season) is not quite advanced enough here, and in the south it may be all too much advanced, and we perchance too late.

I am writing when table and seat (with everything else) are heaving and rolling from side to side like a baby in a swing; and I have not yet learned to write thus at my ease. Now I turn in.

May 3. Harbour of Corunna.

Safe here at 3 A.M. this morning, having had a rough passage, short heavy seas, rain, and fogs, and wind right against us. This is a pretty town, famous in history for two great events (of events connected with England):—the fitting out of the Spanish Armada; and the victory of the English army over Soult, and the death of the English leader Sir John Moore, whose elegy was sung by Wolfe. We are lying in the magnificent harbour, next to a French man-of-war steamer taking in coal, and with Spanish men-of-war around us: it appears to be the privilege of R. Y. S. yachts, and perhaps of those of other clubs, to lie in harbours at the men-of-war stations if they choose, and not among the merchantmen.

At noon we go on shore to stretch our legs, look about us, and post letters; to-morrow morning at daybreak we sail for the south—for Gibraltar direct. This part of Spain is essentially damp, as its locality, an elbow sticking into the ocean, would suggest; our clothes are wet, books are damp, cabins are damper still, and nothing will get dry; we want to run off and look for the sun in his power and get aired as soon as we can, so we leave our proposed land-trip across the country to Vigo till our return, when we can make it, or not, as we like.

I find it almost impossible to write at sea; the motion of the boat makes my head swim too much; nor can I arrange or set out insects: all I can do is to be indolent,

and sometimes read, more often talk, or meditate over the past *versus* the present. What a change! it seems like a dream; a week to-day I was at Tredegar Square, three weeks to day I was at Welton, now I am in an outlandish corner of Spain! I have been looking over the medicine-chest and other matters you have so well prepared for me, and they remind me of you all very pleasantly; so that, though, comparatively speaking, I am almost alone, I am not lonely a bit. I often think it possible that this trip may give me a wandering turn, and that it may not be so easy to settle—at all events that there is a chance of my not settling near you: just as “Northampton is not all England” (your own kind words), so England is not all the world.

Yesterday I was in my berth most of the day sea-sick; I had a thorough touch of it,—and Gray all the time eating immense meals (as they seemed to me), and as fresh and bright as usual. I hope I shall soon be as good a sailor as he is; for sea-sickness is a bore, and to-morrow we shall have rough weather outside again, and I shall be on my back as usual.

We *may* be a fortnight or a very few days in getting to Gibraltar; all depends on wind and weather; anyway I shall expect letters there; and please send all letters there until you hear from me again.

I must now conclude; boats are visiting us.

I post this, or rather leave it with the Consul at Corunna, on afternoon of May 3.

Your very affectionate Son,

HAMLET CLARK.

Corunna Harbour,
May 3, 1856.

MY DEAR FATHER,

This afternoon I placed in the hands of Mr. Santos, our Consul here, letters for England; among them one for Harmston; our call on him was formal and short; then we wandered forth up and down the town. Of course all is strange to me, very strange: bullocks harnessed to sledges were the only beasts of burden, if you care to except women. I went on the heights above town (very dry and barren)—a few plants I did not know, a few beetles under stones (*Harpali* and *Calathi*) with others sparingly in herbage; but it is not a place I care to visit again. The chief feature of the zoology seemed to be the lizards: they abounded; I saw from fifty to a hundred specimens, and probably three distinct species. Moths and butterflies were not seen; but I could only work for an hour and a half, and had no apparatus with me, as we were dressed for calls and not for country rambles. *Hemiptera* (bugs) were in great profusion, some very beautiful and noting more distinctly a region south of England.

Several ladies and gentlemen were strolling about in the streets—the former in mantillas or having no head-dress all, the latter in large Spanish cloaks and hats. To English travellers the strangest sight, perhaps, is the contrast between (and actually jostling one with another) the upper and lowest classes—not only well-dressed

men, but, I should suppose, true gentlemen and ladies absolutely shouldering the most filthy of paupers: on the sunny sides of the streets lie right across the footway lines of sturdy dirty men and women, all most diligently scratching their bodies, and covered, or sometimes not covered, by the most squalid rags; and threading their way among these abominations are ladies with their fans and dons with their cigarettos. Some of the costumes with all their dirt were picturesque: every one is fond of bright colours, red and yellow (the national colours) being the favourites; a few of the ladies were nicely and quietly dressed; but for the most part strong contrasts in colours were more abundant than harmony. I did not see a single priest, though I was on the look-out for them, and the church and monastery bells were going all the afternoon. As to buildings, the place is poor enough: I saw one arch of a church of the old dog-tooth pattern; but this was nearly hidden or destroyed by a miserable shop built into the arch, and the bit that was revealed was coated with whitewash: even in England we should not tolerate such vandalism as this!

* * * * *

At Sea, 100 miles from Gibraltar,
Wednesday evening, May 7, 1856.

Since I wrote the commencement of this letter, our life has been entirely without incident. On Sunday morning we weighed anchor at daybreak and left Corunna for Cape Finisterre: wind dead against us; so after sunrise, inasmuch as I am not yet inured to sea life, I got very little sleep indeed. During the day we had half a gale of wind,

and had to reef mainsail; in the evening rounded Cape Finisterre, and set our course for the south.

Monday. Weather fine, but precious little wind, so we get on but slowly: at noon our reckoning is lat. $41^{\circ} 39'$ N., long. $9^{\circ} 43'$ W. The ship's reckoning is kept regularly by Gray, his Captain sometimes working out the slate calculations; I know nothing in the world about it. On Sunday I could only keep well by sitting quite still on the deck, lodged in a safe corner, and wrapped up in macintosh and great coats, and, notwithstanding all, I got well drenched with rain and spray; but now I am almost well, and free from stomach disturbances.

On Tuesday the weather is finer and the sun is more propitious and genial; he has given us his full warmth for two hours, and we have dried our clothes and warmed ourselves. At noon (lat. $39^{\circ} 25'$ N., long. $9^{\circ} 42'$ W.) we were off the Berlings (little islands I had never heard of before) about ten miles from the coast; and at 6 P.M. we were off the Rock of Lisbon, where I plainly saw Cintra, the fashionable mountain suburb of Lisbon, with its palace, convent, &c.

To-day, Wednesday, at 8 A.M. we were approaching Cape St. Vincent. We have had a glorious day, the weather and sunshine bright, the winds propitious, so that we have done 8 to 10 knots an hour: and the wind promises to hold good during the night; we hope, therefore, to be in sight of the Rock of Gibraltar early to-morrow morning. As yet, we have seen very few vessels; but whales, dolphins, sharks, &c. have been more abundant. We are now in a sensibly warmer climate; the men are looking out their white clothes, and lounging on deck is very agreeable: I trust

that we have done with rain for some time. Our plans are the subject of many interesting discussions and examinations of maps, charts, and almanacks: several routes have been considered. We propose to stay but a few hours at Gibraltar, and then to get on at once to Malaga (we must touch at Gibraltar, to make divers arrangements as to letters and deliver letters of introduction); from Malaga our idea is to go inland to Granada, and, after examining these neighbourhoods (the first sea-shore and on the plains, the second inland and among the mountains), then to rejoin the 'Miranda' and run across to Africa, probably to Algiers, thence making our way to the Atlas Mountains,—afterwards to go on by sea to Oran or some other port, that we may see the North African fauna from as many points as possible, and to return then to Gibraltar, taking perhaps on our way Majorca or Minorca just as a flying visit. So much for our more immediate plans, they are enough surely to satisfy the most ambitious of tourists; but we have ideas even beyond Gibraltar. You will like to know what we *propose*; but, as you are well aware, so entirely does everything depend on health and good weather, that it is impossible absolutely to decide upon anything, either as to our movements or dates.

Gibraltar, Thursday, May 8. Arrived here, all well, this morning, and at once take letters on shore and get a run for a few hours. Best love to you all.

Your very affectionate Son,

HAMLET CLARK.

R.Y.S. 'Miranda,' Gibraltar Bay,
May 8, 1856, Thursday night.

MY DEAR FATHER,

I posted my last letter to you this morning, with the bare tidings of our safe arrival here. I have been on shore with Gray all day: we have had dinner, and got cool again; and I propose, though very tired, to finish a capital day by making you all, if possible, share somewhat in our enjoyment. We have wandered up and down the streets, gone out on the neutral ground to view the grand old rock from the land side, mounted by stairs and roads to some of the nearest galleries, caught a few very few insects, talked with several persons, and have got back again to our cheerful little floating home. Well, I ask myself, what have I seen and learned? Let me try and put my thoughts on paper. First, certainly, if I were a Spaniard, I should be very sore indeed at the idea of Gibraltar belonging to any other flag than mine; for it is such a splendid natural fortress, impregnable by nature to attacks, and by nature the key to the Mediterranean; and moreover it seems to be the centre of a vast amount of smuggling of contraband goods, especially tobacco—that precious blessing, dear to Spaniards as an essential of daily life, and to the Spanish government as a most important source of revenue, tobacco in all shapes being a sort of imperial monopoly; then, further, this is noticeable, that Gibraltar is a thoroughly free-trade town and yet the dearest to live in of any in Europe,—that there is free

trade utterly in religion, and that its motley inhabitants are able to attend Church, or Presbyterian, or Roman Catholic, or Mahomedan places of worship, and yet (as it is told to me) that a larger proportion than usual go to no place of worship at all. There is one other strange peculiarity: the whole rock is governed permanently, as it were, by martial law, by military discipline, and it is a most quiet, orderly, and respectable town; every night at sunset the gates are locked and a guard mounted, and under no possible circumstances are the gates unlocked again till sunrise: if you are wandering across the lines or among the cork and chestnut forests, and you cannot get back before sunset, you had better stay where you are; for otherwise you must sleep on the sands all night.

The streets of Gibraltar are much too small, crowded with idlers, and merchants, and sailors, and, of course more than all others besides, with military. We saw to-day men and costumes from many different nations—English (phlegmatic, perspiring and deliberate), the Arab trader, men black as my hat (merchants from the interior of Africa), Spanish, Greeks, Jews, all sorts, and I suspect all characters; the town is very poor—a bad attempt at being English. We had no time to ride to the other end of the rock, where, they say, we should have found buildings superior to those in the town itself. As to the fortifications, of course I know nothing; all I can say is, that platforms with cannon on them and neat little pyramids of balls met one at every turn, at every angle of every road, and often where one would least have expected them: many of the cannon were old, and some not too large.

The peculiarity of the Natural History of the rock (that

in which alone I am really interested) consists in its monkeys. A large tribe of the Barbary ape (becoming, as they say, less and less numerous) inhabits the high inaccessible crags; they seldom are seen except in severe weather: in *very* bad weather they have been known to come down and steal. I wonder how they got there! where from? and when? This is the only spot in the whole of Europe where they are found. No doubt they have come from the south, from Africa—just as, of the many insects that we find common to both sides of the Mediterranean, some have come from south to north; but *how* and *when* are mysteries to me, or why, when they got to Gibraltar, they did not occupy some of the Sierras also; this is a puzzle. I should fancy that insects are scarce here, though this special peculiarity of the rock being an insulated home for ages of the monkey would make a careful and thorough examination of the rest of the fauna particularly interesting. Some one has published a list of the flora*, and a very respectable one it is: it seems there are 450 species in round numbers, of which 400 are, so to speak, indigenous, though I do not know in what sense the word is used; and 50 are manifest importations: what I should like to know is, how many of these 400 are found elsewhere in Spain or in Europe, how many are found elsewhere only in Africa, and how many are found in both continents. The fish are very interesting, if one may judge from the fish-markets; and indeed the markets, both of fish, birds, and vegetables, are very attractive—quantities of new species (new to my eyes I mean, who have seen hardly anything before alive except British forms).

* 'Flora Calpensis,' by Dr. Kelaart, who treats also of the geology of the rock.

R.Y.S. 'Miranda,'
off Gibraltar Rock,
Friday, May 9.

It is only a month to-day since I was present at the Sunday School Teachers' farewell meeting, and I seem to have lived as many years as weeks! The fixedness of all the eventful past in one's memory makes the present often seem to me a magic-lantern sort of unreal but beautiful visions; soon perhaps the past and the present may change places to my imagination, the former becoming the visionary and the latter the only solid and real: it is no fault of Gray's if the present is not real and full of enjoyment now; in a very quiet way he constantly shows an intention of making me feel at home. I have just come from on deck. We weighed anchor at sunrise this morning, but the wind was so light that we could hardly move: I was on deck enjoying the scene; till 10 A.M. we were drifting up and down close to the rock. Now a very light but fair wind is springing up and we hope to get into Malaga harbour this evening. The view, indeed, is lovely; all around is the Mediterranean blue of the sea, on the left horizon is the snow-capped range of the Sierras, on the right horizon are the snow-capped Atlas Mountains, and above our heads is the brightest and purest colour of all; but Gray says I must not expend all my notes of admiration, for this is but the beginning. We are in the midst of upwards of 500 vessels! The masts in the roads look like a forest, all windbound like ourselves.

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Granada,
May 26, 1856.

MY DEAR FATHER,

I must write again before we leave this strange city, although since the 21st there has not been much to tell of. We have had *Corpus-Christi* day here, a grand field-day for the Romish Church; and this year the festivities were on a large scale, the procession of priests in the morning was nearly two miles long,—hundreds of priests and twenty-five or thirty great metal crosses, each cross representing some neighbouring parish. This I give you from hearsay; for as I did not feel any “call” to move in the matter, and as my own private views on the “Real Presence” happen to coincide with those of the Catholic Church, and to be entirely opposed to those of the Roman branch of the Church, and, besides, as I do not want to hurt any one’s feelings or get hurt myself, I decline the opportunity of not genuflecting, and, like a wise man, shoulder my wallet and spend the day as usual among the hills, where there is the true “Real Presence” always, and to any one!

But I saw, for the first time since we landed, plenty of priests: a few certainly I might take to be well-bred and cultivated; but the majority are very much below the tone and style of clergy of the English Church. Take away their dress, imagine those faces in some other than a priest’s garb, and they become at once, what perhaps they really are, peasants’ faces, unlettered, unintellectual, and some-

what animal. I should guess that they fare very well, and that study of books is unknown to them. I was told by a gentleman at Malaga that frequently he had had private visits from them (for the most part seeking for pecuniary assistance), and that almost invariably they were uneducated, not only as to the Bible, but as to the rudiments of ordinary knowledge.

But if I abstained from publicity in the morning, I attained enough, and more than enough, in the evening : for the first (and certainly the last) time in my life I have assisted at a Bull-fight ! It was so utterly barbarous that I am angry with myself, and seek to find excuses to justify my having ever gone there. There must have been thousands of spectators, and a few, *very* few English present ; the only decent animals in the whole place I felt to be Gray and the bull, and perhaps myself ! The poor bull, I pitied him and respected his manifestations of bulldom from my heart ; fight however pluckily he might, his end was come : for every other beast in the arena (biped and quadruped) there was a *chance* of life, for him none ! and yet he was the assailed and on the defensive, and all others were the cowardly assailants : the wretched horses too, I pitied them ; blindfolded, drugged, galled with cruel spurs, they were in the hands of the butchers, and their fate, too, was almost certain death ! Whatever the virtues or the labours of their past lives, they were doomed to be slaughtered, as it were, bit by bit, in detail, just to grace the holiday of some biped animals who had the demon-fit on them strong ! How I should have liked to have seen one plucky little bull toss aside his cruel persecutors and jump over the barricades (as he was very

nearly doing) and set to work among the spectators, and ask them how *they* would like it if they were made to take his place! We had to fight our way in, literally; for there was a rabble of dirty ruffians in the seats to which our tickets entitled us, and I insisted on turning them all out: and we had to fight our way *out*; for before it was nearly over (I confess I was half ill) we both had had more than enough, and determined to elbow our way into the streets again: as soon as our movements were seen, the motive was understood, and a chorus of hisses saluted us. I felt as savage as the bull; but their hisses did not draw blood, and we could get over or round our living barricade; so we departed, having been among "beasts at Ephesus" to any amount, and seen two bulls and five or six horses killed! I have had enough of Spanish bull-fights for ever and a day!

As to myself, notwithstanding the great heat in the middle of the day, which is very oppressive, I continue in perfect health; my skin is as brown as I suppose it well can be; but Gray, I am sorry to say, and other English here have not been quite well; Gray has been obliged to keep indoors and remain quiet, to get rid of the effects of the climate. I go to bed very early, and get up very early; generally am dressed so as to begin work at sunrise. I stay in my room till 9, when breakfast, and at 10 till 3.30 or 4 P.M. wander forth among the mountains, striking out new paths if any tempt me by trees or greenness of herbage, or retracing the steps of the day before to take more of some insect which I then found—as busy and actively engaged, both in body and mind, as it is possible to be: all this time I am alone; Gray perhaps

is in sight working just in the same way, and we make our paths converge for the sake of comparing notes and examining each other's captures, and, it may be (if there is a bit of cool shade), sitting down for a moment or two and refreshing ourselves with an orange; then to work again more sedulously than ever: or sometimes a native comes up to me, seldom speaks, but keeps close to me examining intently every action; one of them said something, which I interpreted into his idea that I was collecting materials for medicine. At 5 P.M. every day there is table d'hôte; after dinner we perhaps have a little gossip with any English at the hotel: then generally Gray comes to my room, or I go to his, for a quiet talk over the events of the day; it is too dark to examine specimens, but there is much that has been well done during our rambles, or else wants attending to on the morrow, and all this makes good talking after the energetic part of the day's work is done. At 9 P.M. bed.

I am (or endeavour to be) careful to avoid fever and overwork, because I of course am anxious not to throw away an hour of this special opportunity; but on the day on which I ascended a branch of the Sierra I really was quite knocked up: Gray, most unfortunately, was too unwell to go. A Prussian gentleman who is here, I, and four guides (or whatever they called themselves) started at 2 o'clock in the morning on horseback, the guides carrying stores of meats and drinks: we got back at nine o'clock at night. I have not been actually upon the snow, for I had no object in doing so, but have been where snow was only two or three weeks ago; everything when we got into the real mountain-districts was

very grand, and the details new and beautiful—splendid orchisses, and crimson peonies, and strange trees, and many plants all in full flower. Of insects, although I expected much and worked very hard, I found but few: there must be some species in such a district in abundance, and probably many species might be found; I conclude that we are too early for the high Alpine Sierras, too early, it may be, by five or six weeks.

I am thankful to say that I have never had anything like an accident of any kind, though every day I have been among the mountains, and often quite alone: for the *ladrones* or hill-robbers I am always prepared; probably here, as everywhere, rumour magnifies dangers, and there are not really so many robbers about as is reported; anyhow their existence or non-existence has not the smallest influence on my movements. No doubt there are plenty of solitary wanderers among the mountains, and each of these wanderers always has some sort of a gun over his shoulder and can boast moreover of a most villainous physiognomy and a murderous-looking dagger-knife in his waistband: for me, I have a very bland and serene smile for any of the worthies who may come up to me; I have, pleasantly sticking out of my pocket, or hanging by a string round my neck, a loaded revolver that has six charges all available in any six moments, and moreover I have in my wallet cigars which I offer judiciously, and no gold studs or watch-chain or good clothes to tempt cupidity; and so we fraternize, and I have never come to grief yet. My revolver is a sure protection against any one or two, but I hope I shall never have to use it; I should be very sorry to have to wing a man, but I do not know

what might happen if any were to take liberties with the contents of my insect-bottles.

To-day I was in a cave, resting for a few moments in the shade, quite in sight of Granada : the cave is peculiar and well known ; in this very cave a few days ago a couple of ladrones robbed a wretched priest (I can't conceive what his reverence was doing there) and mulcted him of all his clothes, leaving him in the cave, and nothing else around him, to get out of the mess as he could. I am sure the priest had not a revolver, but only a missal in his pocket ; and that could do no good. You remember what Napoleon said about Heaven being always on the side of the biggest guns.

From priests I naturally pass to their religion ; I have said as yet nothing about this, and of course the opinion of a mere visitor of a few weeks is worth but little. However, there is always to everything a surface appearance which a few glances will comprehend, as well as a more hidden and perhaps more real life of motives and sources of action which none can measure fairly unless they have special opportunities. I have been into several churches, have attended their services, have watched the demeanour of the priests and the demeanour of the congregations, or of the few who almost always may be found at their private devotions at whatever hour one may enter the church, and have not knowingly brought to the subject a biased mind.

You will remember that of all the kingdoms in Europe Spain is one of the most ultra Roman ; she goes so far as to condemn as illegal the worship of the Creator after any other fashion than that of the Romish Ritual. All the ex-

cellencies therefore of this form of Christianity may fairly be supposed to be developed fully and to be manifest in Spain; and any religious defects that are patent in Spain are directly chargeable to their system; for here Popery has free swing, unalloyed and unchecked by opposing influences as in Protestant or more liberal countries. I cannot say that I have seen no devotion; but certainly any foreigner visiting our churches in England would never see what I have seen here. With us there would be *some* interest in the services on the part of the congregations; every one would not be sleeping, or ogling, or eye-wandering, or day-dreaming. It may be fair to impute a large proportion of the thoroughgoing indifference and formality of the celebration of the mass to the uneducated stolidity of the people; it probably may be so, but what but the system of popery has left the people in such gross ignorance? I do not want to use hard names, and I look out for what I can approve of, as well as for what I condemn; but I must say that the public worship of our Maker in Spain, so far as the instances I have seen are any fair illustrations, assimilates in essence more nearly to the practical working of idolatrous worship than I could have conceived possible. Compare it with Romanism in England, it is entirely different! In England Romanism is not taking root, but permitted among a people who are educated, because England is a free and Protestant country; here it has taken root among a people devoted to the papacy, who never have been influenced by heresy or liberalism: the result is very painful to look upon! I would advise any one, young or old, who has any doubts as to which church is in nearer accordance with the Church of

the Apostles, the English or the Romish, to put the matter to a crucial test and come and live here for a few weeks, and simply use his own eyes. Popery in England is not real popery, confessedly ; it is a *grievance* with them in England that they are *in partibus infidelium* and trammelled on every side : here, if anywhere in the world, Popery must be the real thing ; and yet, if ever in the world there is real material idolatry, I have seen it inside the churches in Spain. Nevertheless, notwithstanding all this, I believe there is certainly some true religion (as far, at least, as it is possible for any one to assert this of another), not only apparent formalism, but real religion : among other acquaintances I have made here is that of a tradesman, a cabinet-maker, who is a sort of miracle among his countrymen ; he is devotedly attached to natural history : I arranged to spend a day with him among the mountains ; we had fixed an hour (an early one in the morning) for me to call for him at his house ; it happened that I called half an hour before the appointed time, as I wanted to make the most of the morning, and fancied he might be late : when I called, his wife said he was not at home, he was gone to mass, and that his habit was to go every morning : the man's face would quite give me the belief that this self-adopted habit of his proceeded from something better than formalism. Remember, he was an entomologist ! this may explain a good deal : seriously, it proves that his mind was infinitely more cultivated and advanced than the minds of most of his countrymen.

I forgot whether I told you that in Malaga we made one at least very pleasant acquaintance. The Archdeacon of Dromore has been residing there for some months, and,

seeing me (as we suppose) at the service on Sunday at the Consul's, clerically dressed, was good enough to call on us the next day on board the yacht. His whole family (Mrs. Archdeacon, a sister-in-law, and two daughters) are as pleasant as he is; and somehow or other we were soon at home with them, and saw them or some of them every day. We have planned two or three excursions with them when we get back; they are to have a yachting excursion and luncheon at some point on the coast, and propose to us in return a picnic or two with them among the Malaga hills.

* * * * * * *

I am, my dear Father,

Your very affectionate Son,

HAMLET CLARK.

R.Y.S. 'Miranda,'
Malaga Harbour,
May 30, 1856.

MY DEAR FATHER,

Since I sent off my last letter to you, on the 27th, I have received your two most welcome letters. In order to *enjoy* letters thoroughly it is necessary to be away from England; the picture in one's mind of friends, and English life, and dear old home habits, and loved faces is much more clear and absorbing as suggested by the contents of a letter received among strangers in a strange land than it would be if received at one's own home among personal friends. Even natural history, engrossing as it deserves to be and as it is, for the moment is forgotten or passed over when letters from England come; these waken up other feelings, and hurry the mind away from the present into the other present, the past.

I have not written in the form of a journal; for no one at home (alas that I should say so!) cares for entomology; and one day is so much like the next day, that my letters would be to you mere repetitions, though to others full of interest. There would be on Monday such and such insects taken (then a host of Latin names) in such or such a locality (then Spanish names); on Tuesday ditto, with variations, and all interspersed with notes and memoranda.

I am writing after breakfast. To-day we are to take the Archdeacon and his party a cruise—to sail to a point along the coast, on a sort of picnic-entomologico-botanical

excursion : our visitors are late, and the wind is dropping ; I fear we may lose the day.

The King of Portugal, or ex-King, the cousin of Prince Albert, is here at Malaga, and our next-door neighbour in the harbour (we as being of the R.Y. Squadron of Great Britain lie on the best side of the harbour among the men-of-war, and on the opposite side to that occupied by merchantmen) ; he is going *incog.* to Granada on a visit. On Tuesday evening, from 10 P.M. till past midnight, the harbour round us was most gay ; one of the Spanish gunboats lying on the other side of us illuminated from stem to stern with coloured lamps, and then took on board a garrison band, and swept round us and came between us and the Portuguese man-of-war to serenade the King ; so we had the benefit of the whole of it, as if we had been ourselves serenaded.

These Spanish gunboats lead no idle life : they are small and draw but very little water, but have one heavy gun amidships, and are crammed with men ; they can spread an enormous amount of canvass, are lugger-rigged, and as able to make the most of cat's-paws of wind as any vessels afloat ; and besides their sails they can use oars ; several on either side, each worked by three or four men, can sweep the little craft along in the stillest weather. The object of all this motive power is the capture of smugglers, who abound on this shore : every evening about sunset on one or other of the gunboats we can see signs of animated life ; sails are spread or oars are got out, and the pretty little vessel gracefully leaves our side on its night-duty of watching the shores.

At last the party is come, and we are all right ; but

there is one serious difficulty, we really do not know their names. It is not really serious ; for if the worst comes to the worst we can ask, or to-morrow I can go to the Consul's and inquire.

May 30. Friday night.

I must finish my letter : we have had a very pleasant day, although our visitors were so late, and the wind so light. We sailed a few miles across the bay as smooth as glass, to a village (Torré Malinos, as I make out the name), and landed ladies and all through the surf, intending to wander up the country to some wooded ground that we saw, some of the sailors accompanying us and carrying hampers &c. ; but before we had well set foot on shore we were met by an official who would not allow us to stir until we had obtained leave from the governor of the village. Well, all we could do was to wait and humbly sue for leave to defile this orthodox land of Spain with our footsteps. Alas, leave is refused—refused utterly and unconditionally ! the reason which the great man chose to give was that we were in quarantine ! We were so disgusted with the impudence of this Spanish “do,” that we resolved we would not purchase our liberty by a farthing. They said that the smallest coin would frank us all anywhere and everywhere ; but no small coins they saw from us. It was a great joke ! on one side were a good many of the country-folk come to have a look at us ; these were on the margin of the cliffs and shore ; they were made to stand aloof from us by a couple of dirty emaciated wretches with soldiers' uniform on, and *driven away* from us if they came too near ; on the other side were we from the yacht in the rudest health and vigour, isolated by these soldiers

from the peasants, and kept at a distance from themselves for fear *we* should give *them* disease ! Alas, Conservatism ! what foolish deeds do foolish men sometimes commit in thy name ! and so we were confined to the shore ; I worked away at entomology, and took eight or nine *new* insects besides several that I had discovered on the shore at Malaga ; Gray with the ladies attacked the botany of the sands, and he was more successful still : the bright-blue larkspur and other interesting flowers were common. On the whole we spent a very pleasant afternoon on that strip of desolate sands, although we were all supposed to be smitten with the plague ! We sailed back into harbour, gave the ladies dinner on board, and saw them safe home all in good time.

To-morrow we are to be at the Archdeacon's house at six o'clock in the morning, having previously breakfasted, to spend the day up some ravine that they describe as specially cool and delicious—some mountain-course a few miles off. The family is Irish, and very agreeable ; the sister of Mrs. Archdeacon is of a well-known Cheshire family. Then in the evening, almost to my sorrow, and I think to Gray's, we are to leave this charming Malaga and sail for Algeria. These evenings are unspeakably delightful, so calm and cool and refreshing after the great heat of the day. Now I must give over, and turn in, or I shall not be ashore according to appointment to-morrow morning.

I am, my dear Father,

Your very affectionate Son,

HAMLET CLARK.

R.Y.S. 'Miranda,'
Algiers Harbour,
Saturday, June 7, 1856.

MY DEAR FATHER,

For the first time since we sailed from Cowes I am not perfectly well—nothing the matter whatever really, only a little sluggish and tired; and so simply from prudential motives I stay at home this evening, take a peep into the medicine-chest, and write letters, instead of taking a walk. It is merely what I have seen in several others, results of heat and of changes in temperature—stomach out of order, and a little bodily weakness. I quite trust to be perfectly well before I send this off.

My last letter was dated May 30, and sent to the Consul's at Malaga on the 31st. On that our last day at Malaga I enjoyed myself even more than on any previous day; our excursion into the hills was a perfect success. Neither Gray nor the Archdeacon would join the party,—the former to his regret, inasmuch as he had yacht business to settle; the latter probably (after the manner of Archdeacons) preferred repose to gadding about. At 6.30 A.M. we all started off in a car, or whatever they call it, for the mountains,—three ladies and myself—one to sketch, one to botanize, one to look on, and one to entomologize. We got to a wild bit of scenery, where each one worked in his or her vocation, and did so to some profit: the plants were lovely, and these little thread-like ravines that do not reveal themselves till you are in them harbour many rare species that are never met with elsewhere;

insects, too, invited perspiration and toil ; as for sketching, there was not a single tame bit of nature, look where you would ; that glen would make the fortune of one of our R.A.s. At 11 A.M. under the grateful shade of a rock we breakfasted a second time, compared notes, chatted, and then set to work again ; the result was to me that I took more good insects than I had done on any previous day, and (as I hope) that I made an entomologist.

In the afternoon we returned to an early dinner at their house, where Gray met us ; at dusk we said "good-bye !" I rushed off to the Consul's to leave a memorandum about letters, and then in hot haste on board ; every one was waiting to be off ; but not a breath of wind ! It is of no use making a trouble of it ; we tranquilly repose on the deck for an hour or so of that most delightful of all times in Spain, twilight ; I tell Gray of all our adventures ; he narrates his less interesting visits in the town ; we watch our neighbours the men-of-war, and then turn in with the almost certainty of being able to go to church here to-morrow. But at two A.M. a kind or unkind breeze gently fills the sails ; the watch heave up anchor, and we creep out of harbour : the wind does thus much and no more. All Sunday we were nearly becalmed within sight of (almost close to) Malaga, but could neither get forwards nor back again : it was a very uncomfortable day with me ; for the swell of the sea rolled the vessel incessantly from side to side, so that (without being absolutely ill) I did not at all like it. During the whole day we only made good fourteen miles.

Monday, June 2. All night becalmed ; at 11 A.M. a N.W. breeze sprang up, which helped us along famously ;

in the afternoon we had another experience : a magnificent thunderstorm burst over us ; the waves in a short time became as black as the sky, the sky blacker and blacker till we seemed wrapped up in an inky shroud ; the sea rose, the lightning was incessant and made the whole scene lurid ; the thunder crashed in explosions rather than in rolls : it was a very grand, an awful sight, something to be felt, not to be talked about or written about. Before dusk we sighted Cape Gat, bearing N.N.E. nine miles away ; from that we took our course southward.

Tuesday, June 3. At noon, lat. $36^{\circ} 30' N.$, lon. $0^{\circ} 53' W.$

Wednesday, June 4. Up and on deck at 7. Sighted the African coast near Cape Tenez ; but the wind was contrary, and so after breakfast, instead of beating up to Algiers, turned round to look for Mostaganem, 60 miles or so to the west. At 2 P.M. the weather changed, thunder and much haze, and soon after the wind chopped round again to W. ; so we were as badly off as we were before : we rounded also, and put her nose again towards Algiers. At 6 P.M. we were exactly where we were at 7 A.M. ! such are the vicissitudes that make yachting so full of interest. The weather was very hot, the air close and heated as from an oven.

Thursday, June 5. At 11 A.M. anchored in the harbour of Algiers, and entered on a fresh world ; after luncheon went on shore to deliver bill of health, and to take a first look (first, that is, to *me*) of Africa and its inhabitants. Here we are where thirty years ago it would have been madness, or perhaps utterly impossible, for any Englishman to show himself. Then Algiers was a nest of pirates, whose hand was against all civilized nations ; to-day we walk

about its streets as safe as if we were at Southampton. Thirty years ago it represented bloodthirsty Africa; now it resembles civilized Europe, thanks to French energy and perseverance: in twenty years they have made Algiers more French than the Spanish have made Granada Spanish in 200 years.

June 9. For the last three days I have been obliged to keep perfectly quiet, and to remain for the most part on board; diarrhœa has made me rather weak. When I am able, we go to Blidah and Medeah; but if I am not better to-morrow, Gray shall start without me, for I do not like his waiting merely for me, and then I can quietly stay till I get stronger or till he returns. Sunday is much better observed here than I had supposed: it resembles London on that day as to general externals; shops are all closed except a few cafés, tobacconists', and haircutters'. I have got rather badly stung by a beast of an *Ichneumon*; I bottled him for his mistake, and then managed to squeeze some of the poison out, but my hand and wrist were swollen for some hours. This is a splendid place, I should fancy, for shell-collectors: whenever we land we pass the fish-market, which is well supplied with all sorts of queer things, both sellers, and things sold, and buyers; I counted at one stall upwards of twenty different species of shells, there were lobsters with feelers 15 or 18 inches long; I much coveted the beauties, not for their insides, but for their outsides. Fish also are abundant and curious. I fear that insects and plants are scarce, and that we are too late for much entomology. * * * *

Your affectionate Son,

HAMLET CLARK.

R.Y.S. 'Miranda,' Algiers Harbour,
June 10, 1856.

MY DEAR AUNT,

You have heard all about me of course from Harmston, and read in my letters of all the ups and downs of yachting life; very few downs, *none*—all ups. But nevertheless I must send one letter to you direct. I am kept at home in Algiers, and for the most part on board the yacht, by a slight indisposition; it is nothing but the change of climate, and the great heat of the last week or two to which I am unaccustomed; at these my internal machinery has rebelled, and I am just poorly enough as to weakness and diarrhoea to find it more desirable to be quiet and to take a little medicine for a day or two, than to rush out and face the burning heat even in quest of beetles: you see how prudent I am; it is my character. To-day my friend Mr. Gray has started for the interior, for Blidah at the base of the Atlas Mountains; I follow him when I am able.

I cannot describe to you how entirely I am enjoying this life; it is anything but an idle life. My chief if not my sole object is Entomology; and "make hay while the sun shines" is specially applicable to my case: of course I cannot expect to do anything of real importance in a few days, even among the rich products of such a teeming region as this; but I may do *something* as the basis of future more critical work, and at any rate my captures will be beautiful and interesting *souvenirs* of pleasant strolls and strange incidents, and something to admire

and waken up memories in future years. Our habits are most regular and uniform; the description of one day is for the most part that of every day. I get out of my berth as soon as I awake, about 5 o'clock, and then am most busily engaged in arranging yesterday's captures, and filling storeboxes, labelling, &c., till breakfast-time. At 8 A.M. is breakfast; (we devour mountains of food of all sorts, and meals are a serious thing to us, so hungry are our stomachs!) after breakfast we make ready for the day, *i. e.* fill our pockets and wallet with bottles, diggers, luncheon, &c., see to our nets, and then to the country: we always set out together, but seldom return together; the excitement of the exploration is greater than the pleasure (for the moment) of each other's company: from 10 A.M. to 4 P.M. we are wandering about by shore or river or on mountain or in garden or wood; then home, dress, just make sure of all our captures by killing them, and then to dinner: till dusk we are engaged in small gossip, and putting a little in order the results of the day: at 8 P.M. tea; then reading, writing up notes, backgammon, or a lounge on deck till 9.30, when we light bedroom candles and retire to our cabins. This is our almost unvaried course of life. I shall have taken, I hope, and set up, from 5000 to 6000 specimens of beetles, and besides these a few plants (I know nothing of them, but they were irresistible). I fear, however, we are not fortunate in our time: here at Algiers everything seems parched up and withering; we are several weeks too late; at Granada we were some weeks too soon, the high altitude of that part of Andalusia making all the difference. Sundays are days of at least bodily rest; I go to the churches, and

have seen much to amuse or interest me, and some things that have astonished me.

These Moors or Algerians are not a tenth part so curious and inquisitive about my in season and out of season beetle-catching propensities as the Spanish were. Of the latter I generally had a small group about me, redolent of garlic, and as prying as children; but here the Moors won't condescend even to glance at me; they pass on their way as if no one were near them, supremely indifferent whether a Frenchman comes to take their country, or an Englishman comes to take their beetles! "Allah is great!" "There is one God, our God, and Mahomet is His prophet," satisfactorily accounts to their minds for everything. A charming faith indeed, saving a man from many a toilsome effort of body or mind; but it is like other forms of faith nearer our own homes, somewhat unprofitable. They are a very stoical race, except their *women*, who, if eyes can talk, as we meet them veiled up to the eyes in street or road, are like all other daughters of Eve. I can't tell you whether they are pretty or ugly: their eyes will do, certainly; for the rest, they have well-arranged ample white draperies, yellow-stained hands, and yellow-stained feet. One of them I fetched out of her house the other day in a precious hurry, shrieking, screaming, running as if her women's apartments were on fire: I was quietly and successfully picking up beetles in the midst of her garden; the old lady fancied that I was pocketing her flowers! When she saw my innocence she allowed me to go on; but even in her hurry she would not put down her veil, though I

asked her to do so by signs and she was ancient and garnished with wrinkles enough to stock a whole alms-house of dames.

I believe, if I could do exactly as I liked, I would not come back to old England for some time ; this life is so thoroughly enjoyable : my present accessories as to comfort and companionship leave nothing to be desired, and travelling ripens and opens out the mind, finding new regions for thought, giving breadth of view and toleration instead of the miserable blear-eyed sectarianism that we find even in educated England. This is what many have reported as their experience, and this is what I am beginning to feel already myself.

We (Gray and I) are carving out all sorts of plans, and incubating almost every night, with the hope of hatching some scheme of further future travel together.

As I write, I hear in the silence of the evening the loud-sustained chant or cry of the Mussulmen on the tops of their mosques calling to prayer. Are their prayers answered or not by Him to whom they are addressed ? I pass on to you the question that has set me thinking for the last few minutes.

I am, with much love,

Your very affectionate Nephew,

HAMLET CLARK.

R. Y. S. 'Miranda,'
June.

MY DEAR FATHER,

My last letter to you was dated Algiers, June 10, written just before I left for the interior; I will now resume from my journal from that date.

Thanks to your medicine, which I found safe among the Harmston things, I was soon better after my slight attack, without the aid of any Algiers doctor, and was well able on the 11th to follow Gray to Blidah, a native French-occupied town in the interior, at the base of the Atlas range, on the south side of the great plain of the Metidja. I put eatables, drinkables, and cigars for self and chance companions into my wallet, left the yacht early in the morning, and started by the diligence, having secured previously the third place in the coupé.

It is a splendid morning—the air sweet-scented and pure, the dust considerable. We slowly creep up the road that leads to the Upper Mustapha, overlooking the bay—*very* slowly, for the zigzag road is steep, and the heavy French diligence with its great hill of luggage seems too much for the team of little wiry horses. But I for one do not grumble at the pace, for the views we get, as we are mounting of bay and town and hills are exquisite; each turn gives a fresh point of view, and details of beauty all different! Many a green bit of herbage did we pass and many a shady ravine, on the hills above us, that sorely suggested rare insects and pleasant rambles; and I re-

gistered a resolution in my own breast that, if I could, I would know much more of this Upper Mustapha on some future day. At last we reach the summit of the coast hills, on the slope of which Algiers is built; we have below us stretched southward right across the horizon, bounded in the distance by the blue Atlas range, the plain of the Metidja, perfectly flat, of a grey autumnal hue with patches of green: the view reminded me somewhat of the splendid view from Harmston hillside, although on a smaller scale and with the Atlas Mountains in front instead of Lincoln Cathedral and its hill on the right. We descend the hill more rapidly, and pass many little pretty-looking cottage-farms, with more the look of French than of Moorish occupancy: I see what I take to be crops of tobacco, and sugar-cane, and barley.

We come to Birkaden, entirely French in manner though Moorish as to its name—French hostelrys and small shops, just as we see in the French provinces. French residents lounge about or come up to look at us; they are now certainly the real occupants of this district; the Africans are wayfarers come from a distance; every now and then we meet one, swarthy, clad in white *bournous*, always smoking, jogging along as slowly as if he had no care or wish in the world. From Birkaden we have still to descend for a mile or two, and then we are actually on the Great Plain; we gallop along a first-rate road, skirting the plain which lies on our left: houses (always white) are few and far between, indeed the road on each side is margined by jungle; it is the exception to come to a bit of cultivated land. And now we cross the plain almost at right angles to our previous

route; we meet camels a few, with their deliberate step and intensely ill-natured face; sheep, cattle, waggons laden with produce, and an occasional diligence crowded with passengers for Algiers. The road itself and the occupants of the road are all excellent, and look as if somewhere there was colonization; but the country around us is simply desert.

We reach Boufaric, a sort of central village in the midst of the plain—in former years the scene of many a fight between French and Arabs, and, what was perhaps worse still, a hotbed for malaria-fever. Now the French have changed all that; it is just a superior French village, with French-looking houses forming little streets that run at right angles to each other, well drained and tolerably healthy; fruit-trees (mulberries, oranges, and olives) look well and flourishing; rows of trees skirt the road-sides, as in France; tobacco is rank, luxuriant, and admirable in quality. We saw a café or two, so clean and cool that I longed in my heat and dust for a quarter of an hour and a bottle of lemonade in their shade; but coaches are relentless, our team is replaced, and we are off again into the desert-like plain. Boufaric is a success in French colonization; but then Boufaric and its cultivated home-farms occupy but two or three square miles, while the whole Metidja plain contains at least eight hundred square miles. Once, in by-gone generations, the whole was most carefully cultivated, a perfect garden, and the corn-warehouse which supplied other countries besides Algeria; now it is all waste. The land is as fertile as ever, occupation is perfectly secure and safe, freehold possession may be had for a trifle; the only serious expenditure

would be that of grubbing up the thickly matted roots of dwarf palms and other trees; the climate is not unhealthy, for the French colonists seem strong and robust; but yet colonists will not come! What is the reason?

Away we gallop over a splendid road, I suppose almost due south—dusty, straight, interminable, fatiguing, for I can see neither beast, bird, nor flower to excite me; all is dull, uncultivated scrub or marsh, dreadfully monotonous: at last the white walls of Blidah glisten in the distance; it opens out to us just in appearance a small French country town. As we draw nearer, French occupants, military and civilians, become more abundant; the streets have an air of comfort and contentment in the cool of the evening; we gallop up to the hotel, and there cooler and a better sight to me than anything else is the shooting-coat of friend Gray, come to see whether I had recovered sufficiently to follow him by the next diligence. As for me I am so well that after a wash and dress we saunter out together to explore Blidah; we listen to a first-rate military band on the Square, enjoy unmistakeably good lemonade and coffee at one of the cafés, and do not get back to our rooms till a later hour than usual. We arrange to start for Medeah to-morrow by midday diligence.

June 12. Up at 4 A.M., and out of doors among the gardens and fields from 7 to 12.30; then to our hotel, packed up, and started for Medeah at 1 P.M. The scenery through which we pass is superb; we are travelling along a well-arranged military road that will take us through the gorge of the Chiffa into the very heart of the Atlas Mountains. At first the mountains are to our left, approaching

us nearer and nearer ; deep chasms appear in the plain, at this season sandy and barren, but in winter the overflowing watercourses of vast torrents. And now we begin to climb ; I can't paint with a pen, and the lovely and stern beauties of the afternoon's drive baffle description. Now we are threading our way amidst forest scenery ; now steep precipices, rugged bare rocks, and overhanging cliffs surround us : we pass many little mountain rills—alas ! impossible to us just now, though often we longed to have just an hour by their margins, for certainly they are the homes of un-European water-beetles ; and by the side of the road are little bits of water, fringed with ferns and mountain plants. We envied the labourers mending the roads, for they could learn all about the beauties among which they lived ; but for us, stern fate and galloping steeds and a frantic driver hurried us away from everything, leaving with us only the power to admire, and to covet, and to remember.

We come to a roadside inn, in the midst of a grateful wood shady and sweet-scented, where we stay a quarter of an hour. Here monkeys are said to abound among the trees ; of course we saw none. I do not know how the others spent their moments ; I spent mine in savagely turning over every stone along the road, and was rewarded by a tube-full of Coleoptera that I found lurking beneath them, and got into the coupé again, very hot and as dusty as ever, but well pleased with my success.

In the evening we arrive at Medeah, and find queer quarters in a strange-looking box of an hotel in the midst of the little town.

June 13. Our night has been one of misadventures to

each of us : by day we prey upon insects, by night insects prey upon us. We have a splendid invention to resist their attacks, we call it a "flea-bag"—simply two thin sheets sewn together round three of the sides, and capable of being drawn up tightly with a strong tape through a well-sewn hem on the fourth : we get into our bags, draw the string tightly round the neck, fasten it from the inside, and if we are cunning we are safe, except on neck and face ; but here, alas ! whole squadrons of light cavalry assail us, and they find their way through the creases of my tightly drawn bag ; they prevent sleep, they promote fever and thirst, and in the morning offer themselves an inglorious prey to my righteous wrath. In other words, the hotel we had found was very dirty and uncomfortable ; and so (for it *may* have been on this account ; if so, reason enough) Gray returned this morning to Algiers and the luxury of a clean home on board the 'Miranda,' leaving me behind him to revenge myself by a day's work in the mountains among the beetles, and to brave the night attacks of the tenants of the hotel once more.

I was out working in the lanes and fields for twelve hours that day, and got home so tired that I could enjoy a bad supper and slept through everything. Among small adventures that befell me, I must tell you of one. I saw a little stream at a distance crossing the road, and made for it as being a fitting place for luncheon &c. ; when I got to the trees whose shade I was seeking, I found another occupant, a swarthy Mussulman ; and as I came up, the poor man was on his knees saying his prayers and bowing every now and then his body to the earth—as he believed, towards Mecca, but, as I know, to-

wards Paris. Of course I waited till he had finished, and then went up to him and made friends by giving him a cigar and a light and a strip or two of orange. I wonder whether you might not walk all England through without ever finding a Christian thinking in this way more of God than man, and caring nothing for bystanders, saying his daily prayers "as he did aforetime!" My fellow traveller went his way; I filled my bottles before I got home, and was well satisfied with the result of the day's work.

June 14. A very long day's journey back again to Algiers by the same route: Gray met me at the diligence-office, with a couple of his crew, for my traps, and I got on board the yacht safe and well before dark; and now, having looked at the neighbourhood of Algiers and run across the plain to the Atlas, we propose to leave to-morrow morning for somewhere: Gray, with the help of his captain, has to-day settled all necessary business as to stores and ship's papers, and there is nothing to detain us.

June 15. Up anchor at daybreak for the west; we propose to visit Oran, another seaport of Algeria. But at breakfast time we are hardly out of the harbour; there is something to detain us after all—want of wind! The whole of the day we are tossing about in the bay—a very hot day, and, because we are restless, an uncomfortable one. At 11 P.M., when I went to bed, Algiers lighthouse bore S.S.E., just eight miles off!

June 16. Very rough and stormy; wind right ahead and plenty of it: the yacht rides like a duck; but even ducks must get rather damp in such wind and waves as these!

I am pretty well, not at all sea-sick ; but I like being on deck and being blown upon and pelted by the spray rather than being below and partaking of the gymnastics of this eccentric cabin. As for Gray, he sometimes comes and sits by me on deck in his waterproof, but most obviously solely for the sake of good fellowship, and not in the least driven from below by any straits of stomach ; he proposes a pipe as a change, or he suggests sherry and soda-water in the tipsy cabin, or he reports the reckoning of the vessel, and then goes back again to his occupation, whatever it may be, below, caring little or nothing for the hurly-burly. It is only Gray and flies, or creatures accustomed to walk with their heads downwards, that can enjoy life below deck when every minute or so the side of the cabin suddenly becomes the ceiling, and the floor a perpendicular plane !

At noon, lat. $36^{\circ} 48'$ N., long. $2^{\circ} 20'$ E.

June 17. Calm all day, not a breath of wind, the reef-points rattling on the mainsail with the swing of the vessel. The look-out espied turtle at a little distance asleep on the surface of the water ; our captain had in no time the smaller boat over the side, and managed to capture three of them : the shells were about two feet long. At once every one speculates as to the possibility of turtle-soup and the capacities of the cook. One of the creatures is forthwith killed, to be the basis to all on board (cabin and forecastle) of a grand feast to-morrow. The shell is to go to the gardener at Gray's cottage at Hythe, as a decoration and a memorial ; so says the Captain, the gallant captor of the beast.

At noon, lat. $36^{\circ} 55' N.$, long. $0^{\circ} 5' E.$

June 18. A fair steady breeze at last, which determines us not to stop at Oran, though I should much have liked to have seen it; for we have already lost so much time by calms.

N.B. Turtle soup an unmitigated failure, an impossibility! The cook is only saved from being anathematized by our remembering that it is not the West-Indian species that he had to deal with—a fact which we might have known before; but, alas! gastronomic desires too often cloud the reasoning powers, sometimes even on board a yacht!

At noon, lat. $36^{\circ} 31' N.$, long. $0^{\circ} 35' E.$

June 19. At noon, lat. $36^{\circ} 7' N.$, long. $2^{\circ} 32' W.$

June 20. At noon, lat. $36^{\circ} 38' N.$, long. $3^{\circ} 45' W.$

June 21. To-day we are again becalmed; small puffs of air come and make us hopeful, and then leave us; we are within sight of Malaga, but cannot reach it; we can beat everything in the shape of a ship that has come across us, and can almost go ahead in a calm, but not quite; so Malaga is still beautiful in the horizon. Gray wants to be at home soon; but so long as this calm lasts, unless some one will get out and push behind, it's little good looking into the future and wanting anything.

* * * * *

Sunday morning, Gibraltar.

Just anchored in the harbour: we are going on shore to service at the Cathedral, and to post or leave this and other letters with the Consul: we stay here till to-morrow, wait till the market is open to secure fresh provisions, and then set sail for Tangiers,

where I *hope* to find letters from you, and thence probably sail direct for Cowes ; so this may be the last letter you receive from me before you hear of our return to England again. Please to have all letters &c. sent to me to Mr. Gray's at Hythe. The probability is that I shall leave Gray and the yacht at Southampton, and make my way at once to London and Harmston : I want to see you all again very much.

As to the future, to which some of your letters refer, I do not write about it, though it is a subject often in my mind ; I hope to have soon an opportunity of talking matters over with you. Somebody suggests the Punjab, to join Robert, and try missionary work among the Sikhs. No ; that won't do, I think ; for, first, though I should cordially rejoice in getting near to my brother, there are other points which might not be so certain. I don't say that I should lament such a transplantation as a calamity ; but the question would be very doubtful ; and then, again, I am not good at learning languages, and much time would be spent in the drudgery of grammars, and perhaps lost.

Let me say that it has often occurred to me that some of you at home may a little over-estimate "missionary" work generally, and exaggerate the self-sacrifice which it involves. To my mind a clergyman, a teacher, is under all circumstances a clergyman, a teacher : if he is right-minded he cannot be less ; under any circumstances he cannot be more. An English curate is a home missionary ; a foreign missionary is an English curate abroad : there can be no distinction. The contrast between different sorts of English clerical work at

home (*e.g.* town and country) is infinitely more striking than any contrast that can be raised between home and foreign clerical work: if there be a difference, and the difference is to be measured by sacrifices and self-denial, I believe the superiority would be, as a rule, with the English curate. In almost every detail which is supposed to confer human happiness the young clergyman abroad has the advantage over the young clergyman at home: his salary is greater (if at least our home specimen is a curate); he has the advantage of changes of scene, of varied climate (in no cases worse than that which the merchant or soldier undergoes, and undergoing comes back to spend a green old age at home), of knowledge of men and manners, of the ripeness of experience to be attained only by travelling and intercourse with many men of many minds, and, last though not least, of comparative ignorance of, and hence less anxiety about, his people among whom he has to minister. The *only* disadvantage to be set off against all these is his comparative distance from his own relations; this I acknowledge would be a great trial to me, although as I think of it and the infrequency of intercourse often among members of a family in England voluntarily, merely because the intercourse might be frequent and "any time is no time," I fancy that this is a trial which I exaggerate. With regard to clerical usefulness, the approximation to the Scriptural standard of a minister, and the opportunities of devotion to his work, *at least* the two are on a level.

I write this because I have fancied that in one of your letters you touched upon the idea that a broad line really existed between the two, as if the one were morally as far

above the other as ecclesiastically a bishop is above a deacon. Just think this over again, please. Suppose that I were to become a curate abroad (*i. e.* a missionary), I should not *myself change*, like a grub into a gorgeous butterfly, or a mud-loving tadpole into a full-blown frog! but I should be *just the same* as I am now, with no more hopes and fears, with no greater inducements to self-imposed toil, with no better opportunities for usefulness, but simply with greater means and capacities for enjoying the innocent enjoyments that life gives than I ever have had before.

I am, my dear Father,

Your very affectionate Son,

HAMLET CLARK.

R.Y.S. 'Miranda.'

MY DEAR FATHER,

I resume the epitome of my Journal, although you will not get this letter till our arrival in Southampton Water. We are travelling very slowly homewards—very slowly because of calms; it is absolutely a fortnight since we left Algiers.

Although yacht life is incomparably superior to every other mode of travelling, there is just *one* drawback to it. It is private and permits a retired life (which no passenger steamer ever does); it is in every climate a real English *Home*, always waiting and looking pleased to receive its occupants; clean and pure and bright, in whatever nastiness of peoples or of waters it may find itself, by it you enjoy the perfection of God's scenery with the perfection of man's civilization; and then the whole sea is to it one highway, one is not cribbed between walls as in land travelling, or tied to time as in railroads or diligences, but free to go just when and how and where you like! It is the *ne plus ultra* of travelling! And yet, as I said, there is one drawback. There is no place or opportunity for exercising one's limbs: the cabin of course is too small for pedestrianism, though amply large enough for all sedentary and otiose purposes; the deck is required for the management of the vessel, and the whole of its amidships is taken up by the boats, which always are stowed in-board on reaching the open sea: the only exercise I can

take is by going up and down the companion stairs, and changing my position from standing to sitting or sitting to standing; sometimes I would give anything for a good fagging walk. I have wanted to climb the shrouds and attempt gymnastics with the yardarm—but this only in my heart, for I feared to come to grief and become a laughing-stock to the sailors.

The weather has been on the whole fine—indeed far too fine. I like a gale of wind much better than a calm, when the sea is as motionless as the sky, and everything seems half dead; then you see the mate hitching up his trousers, and the men obviously chewing tobacco, and the captain sedulously whistling to himself, invoking the winds, and looking (if you catch him at it) as if he never meant it and it were somebody else; and the steersman has that dreamy far-off look into the horizon as he listlessly sways himself with the motion of the tiller, I know he is thinking about the bairns at home; and two of the crew are snoozing in the sail-room, I find them out by their snores. The only happy men on board are the cook and the steward; for they are as busy as ever; come storms or calms, men must eat and drink and be cared for. But in running across the Straits of Gibraltar we had a regular spanking breeze. We wanted specially to go to Tangiers in quest of letters; the gates of the town would be closed at sunset, and afterwards no boats allowed to land: we could not leave Gibraltar before 2 P.M., and had a very rapid current all against us, and nearly forty miles of it; however, the wind was on our side, we put her nose in the right direction, got the square sail on and every stitch the little thing could carry. She behaved

beautifully, danced over the seas or cut through the waves as if she were running for a Cowes cup; we did at least ten knots an hour without any stopping to take breath. She splashes away the crests of the waves as easily as a good hunter goes through the top of an old fence, gracefully curtsying to each big wave as she advances, "stooping to conquer," just like other beauties in other breezes. Of course every one is on deck enjoying the race against time, and of course every one gets thoroughly wet: everything from stem to stern above deck is dripping with sea-water; for the 'Miranda' means to be there in time, and life like this is serious work to her, she never can have enough of fighting when she is in the humour.

Well, we arrived in time! The lifeboat took us through an angry surf; there was no pier or landing-place to be seen, so we jumped out anyhow into the centre of a great crowd of Moors, who wondered, I have no doubt, what manner of beings we were, who came in the thick of a storm and so unceremoniously landed in their midst. We had just half an hour; the crew kept in the boat and backed her off from the shore, for we were not sure of our natives; and we, finding an extempory guide (who blasphemed in English but did everything else in Moorish, and who was therefore perfectly qualified for his work), rushed off to the Consul's, and found (alas, that I should have to say so) *no* letters at all! Either my letters to you or yours to me have utterly gone astray. For the moment we were dejected, and felt that life was a vanity; but Gray, after one moment was over, bethought himself, "Let us go and see Mrs. Ashton!" Who Mrs. Ashton

was, or what Mrs. Ashton was doing among turbaned unbelievers, I could not conceive; but we went. She is a decent homely sort of body, Scotch, who keeps an hotel or a caravanserai, or whatever a place of refuge for man and beast is called here. She chattered at us incessantly, praised herself and her house and the town, was heartily glad to see us and to air her English, and coaxed Gray into accepting (which, of course, meant buying for ten times its value) a bottle of most villanous wine: what possessed him I can't conceive, for we had, as I knew, plenty of vinegar on board, and I had heard no whispers of the wine-bins getting low. We took possession of this precious souvenir, and then went to a fancy shop (a charming place to spend half an hour in) and bought Barbary Morocco cushions: I longed to buy a pipe. We got back to the shore with our guide, who filled the air all the way with cursing, solely for our gratification as Britons. The gates were just closing; the boat paddled in to us, and we waded out to the boat, safely encountered the surf, and were in a few minutes again on deck and at home. Gray has a conference with Captain Dyer; it is arranged that we jog easily on to Lagos during the night; and then we went below, changed all our clothes, had tea with a dash of brandy in it, and a nightcap afterwards, and were none the worse, but all the better for our adventures: Gray had his bottle of vinegar, and I my material for my journal.

June 25. Anchored early in the morning off Lagos (coast of Spain). A heavy sea and an ugly-looking white margin of surf! We waited an hour or two to see whether the barometer were going up or down; it was

creeping slowly but assuredly down: so to land seemed impossible; it would not be safe for any boat to attempt it in a surf like that; better far to lose no time, but up anchor and get out to sea, and make all safe if a storm should be coming this way.

July 1. We landed yesterday at Corunna, merely to take in fresh beef and mutton, vegetables, &c. We get on indeed very slowly; early this morning we got under weigh from Corunna, and are now (ten o'clock at night) well within sight of the lighthouse, having sailed just about half a knot an hour: at this rate it will take us another fortnight to get to England.

July 5. Oh, these dreadful calms! Since July 1 we have never done more than twenty miles a day; yesterday there was a wind right ahead, with a nasty hollow swell of the sea, which made me feel uncomfortable; so I did nothing all day but endure existence. This morning it is again almost perfectly calm, and the vessel is quite steady enough to enable me to write at my ease. I hope it may be as fine as this to-morrow; then, I think, we can have morning prayers on deck. The rattling of the reef-points is incessant, scores and scores of them are knotted on the stretched surface of the sails, and as the vessel heaves to the right or to the left with the swell of the sea they every one of them rattle and chatter like the hoarse deep twitterings of a huge flock of sparrows in autumn time all gathered for a talking-match in the Harmston shrubbery; only our 'Miranda' sparrows talk morning, noon, and night, are most unmusical, weary instead of please, and we can't drive them away.

It is curious to notice the very marked difference of

temperature as we get northwards, and the power of acclimatizing that our bodies possess. We have been basking in warm climates only for two months; and yet that short time has so seasoned us to heat that we quite feel the least approach to more moderate warmth, and accuse it as being cold. The thermometer now ranges about seventy degrees, a very decent and respectable temperature: in England you would call it mild, or some of you perhaps even warm; and yet, contrasted with an African climate, it seems to us so chilly that I have begun to wear woollen shirts, and have looked out all my warmest clothing.

The musquito-net has been most useful in several ways, in this the last: I have been tormented night and day with a little species of black fly, smaller than the musquito, which swarmed when we were off Spain, and bit me even through stockings: it has only just left the vessel. I do not know the name of the little imp; I wish I did, for it ought to be recorded as representing an intolerable nuisance. My habit always is to sleep with my cabin-door hooked wide open for the sake of ventilation, and these wretches got into the habit of assembling in my cabin every morning, and making an early wholesome breakfast off my juices. However, I stopped their little game at last by pinning up at night across the door the thin net, and then, when I am safely bottled up inside in company with a candle, killing with the towel every black atom that I can discern. The results are at once manifest—comfort of body and a small heap of specimens in the soap-dish every morning: by half an hour's work at night I secure the great blessings of sound sleep and good air.

July 7, Monday evening. After a grand run across the Channel (nine or ten knots an hour all day) we have just sighted the Needles and Hurst-Castle Light. Of course we always catch up everything afloat going our road; this afternoon it was very interesting to see how we walked into a good-sized brig just in our track. As we came up with her, in the midst of the gale, our captain hauled in the mainsheet a little, so as to diminish our speed and bring us to the brig's rate of sailing; we were about twenty-five or thirty yards distance from her, side by side, and then Captain Dyer and her captain set to and had a regular contest in shouting; I have not an idea of what they said; I hope they had; but Captain Dyer seemed relieved as to his mind. He must have been pretty well exhausted; it was as good to him as a stiff run uphill for a couple of hundred yards. He eased off the mainsheet again, and we jumped ahead at once, the envy of that brig's crew.

We shall probably get to the old anchorage off Cowes about midnight, and go ashore to-morrow morning, when I shall post this at the club-house. I hope we shall both be on shore at Hythe to-morrow night; and if so, this is my last night on board the good yacht 'Miranda.' I am eagerly expecting letters from you. I am perfectly well and robust, better in health I suppose than I have been for years; but it is dreadfully cold: I feel the change of the temperature much. It has been raining all day in the old English fashion; we are sure we are getting nearer home; leaden skies and dribbling indolent rain can only be found in perfection like this in northern latitudes; everything is damp, and everything feels chilly.

It is our last night on board ; Gray orders in hot water and tumblers and sugar ; black bottles, too, appear. We congratulate each other on the perfect success in every detail of our trip, fight some of our battles over again, and drink to the health of all at home, to the success of Entomology, and to the prospects of some second expedition together in some other direction. The crew in the forecastle too are not forgotten, but have material sent them for big bowls of hot punch.

July 8. We got to Cowes, all well, last night, and anchored in the dark in the midst of a fleet of yachts. I hope to be with you very shortly.

Always your affectionate Son,

HAMLET CLARK.

Roy. Steam Nav. Comp. S.
'The Tyne,' Bay of Biscay,
Wednesday, Nov. 12, 1856.

MY DEAR FATHER,

As far as I know I am the first among the passengers to put pen to paper. I have seen no one attempting it yet, partly of course on account of sea-sickness, but partly on account of the more than usually rough weather. I am most happy to find that even in bad weather I have a chance of being free from illness, thanks perhaps to my 'Miranda' experiences; at all events I have not had since I came on board a single moment's sickness or uneasiness; in fact I am much better than Gray is. As for the other passengers, I certainly have not seen half of them, except just for an hour as we steamed down Southampton Water; but, to make up for not seeing them, I can hear them all day and almost all night long; moanings, sighings, and all the ominous sounds of sea-sickness assail us everywhere below, in the saloon as we sit there in the intervals between meals, in cabins behind our seats at table, and in cabins adjoining our own cabins at night—sounds not very pleasant at first, till one gets a little accustomed to the novel state of things.

Of our passengers a few are going to Lisbon—among them a Portuguese field-marshal the Duke of somewhere, and his English wife whom he is now taking home for the first time; several passengers for Madeira, all of them English, I believe, and most of them ladies. Our total number of passengers is now about 180; at Lisbon we are

to receive some forty or fifty more, Portuguese or Brazilians, travelling like us to Rio; at most of the subsequent stations we shall receive as many or more than we lose; so we have the pleasant prospect of a continued series of sea-sicknesses till we finally land at Rio! Our crew of sailors is about thirty-five, and engineers and firemen another thirty-five. I have made acquaintance with the Captain—quaint, old-fashioned, with plenty of dry humour, plenty too, I guess, of prejudices, and plenty of fire if he chooses to scold. Among the English passengers there are some four or five with whom I am disposed to attempt a further acquaintance: the majority of them are unapproachable, evidently are very shy of my white tie, call me “sir” whenever I speak to them, and are on their best behaviour. I hope to goodness this will wear off, or I shall put on the blackest tie I have, and try what that will do. Several of them are merchants and cattle-owners, going back to their homes at Monte Video and the Plate. There is one clergyman-looking man on board; I never saw him till this morning, when he just crawled on deck for a moment and then crawled down again.

Every one says our vessel is a good one; just what is said of every ship at the beginning of a long voyage by every set of passengers that ever sailed in her. She (that is, ours) is slow and sure, by no means one of the fastest, but roomy and well ventilated; certainly she walks along as if the pace were no effort to her. She is iron-built, and iron-built vessels they tell me are not so easy as wooden; every little sea that bangs against her makes her quiver all over; it may be the peculiar vibrating quality of iron, or it may be that her great length (for the sake of speed)

diminishes her strength and solidity. I am writing this at the only place available, at a round table at the end of the saloon close to the ladies' cabin; and here the ship is quivering incessantly, so that it is not easy to write; and she rolls so deeply from side to side that about every half minute all the windows on one side suddenly become darkened—they are all buried feet below the surface of the sea! then they emerge and let me go on for another half minute. The ladies' saloon, close to me, is crowded with ladies: the English are all quite quiet, reading or working or more probably doing nothing; there are four or five French girls, supine as to their bodies no doubt, like most of the others, but their tongues are in full vigour; in tones half querulous, half laughing, they keep up an incessant chatter, making much more noise than all the rest put together. I have not yet made out Mrs. —; to-morrow I shall get at one of the stewardesses and inquire for her.

We have just been shipping a whole series of seas between decks, and I have been looking at the fun going on forwards. There is on board such an unusual quantity of luggage, that the luggage-compartments in the hold are not large enough, and so the residue is piled in masses six or eight feet high, on the saloon deck between the engines, just opposite the doors used for emptying into the sea the baskets of ashes &c. from the furnaces. One of these doors, probably open too long, let in four or five big seas one after another, and these seas washed bodily one great pile of luggage to the other side of the vessel. The little captain was standing, when I saw him, high and wet in the midst, on an insular packing-case which looked lamentably like a piano-case; he shouts and gesticulates to his

army of helpers, while the water rushes from side to side as the vessel rolls, carrying with it all trifles of luggage like portmanteaus, and swirling round the heavier islands of cases; some of the crew set pumps going to get rid of the water, others screw the doors more tightly down, others devote themselves to the luggage and try to repile it: cases marked "*to be kept dry*" are always the greatest sufferers; and one especially, containing evidently a harp, consigned to some Bahia firm, has been the particular butt of the mischievous waves for the last five minutes; this is marked in big capital letters, with two black underlines, "TO BE KEPT VERY DRY." Alas for the lady who sits in her Bahia home, waiting and wishing for her long-expected Erard! I go away to my writing, selfishly happy that all *our* traps are safe and far away below.

Nov. 13, somewhere off Vigo.

At last we have got across the Bay of Storms and are in comparatively a smoother sea. Now passengers come out more boldly into the daylight, and muster well at breakfast. The passengers, collectively and in detail, interest me much; it is a very Babel. Many languages you may hear without leaving your seat on deck—Portuguese, and German, and French, and English; and the languages are not greater contrasts than are the manners and customs of the speakers: we have more pigs on board than in the sty on the forecastle; and geese are not only forward in feathers, but in the afterpart among the passengers in broadcloth. The English are by far the best set; the others are, with exceptions, evidently not fair representatives of the refined of their respective nationalities.

This morning we are quite bright and lively; nearly all the ladies are on deck. Of Madeira passengers, many, alas, are wearing respirators, and are wrapped up as if it were winter; the Duchess all graces and smiles with her devoted bridegroom and her own little devotions to her lap-dog in her arms; the French girls are all here, with *eau-de-Cologne* and French manners; and the men of every nation looking their best, improving acquaintances, and trying to be agreeable. There is a splendid specimen of flirtation going on, which seems to be ripening under the increasing heat: an English girl, under the "care" of Mrs. — who is always ill in her cabin, and a certain German are the individuals.

It is curious to note how quickly on board a steamer, when passengers are compelled to live in each others' presence nearly every hour of the day, restraint in manners disappears; it only requires a very few days to effect the change. At first we all are on our very good behaviour, attentively courteous to each other on deck during meals &c.; but such seems the natural selfishness of our nature, that this more refined civility quickly vanishes. Of course it is only outside; but it is just that sort of outside which makes all the apparent difference between a well-bred gentleman and a selfish clown. Here on board real character crops out unequivocally every day from behind the French polish; there is much to learn of human nature by the eyes only. Last night card-playing and gambling on rather an extensive scale began in the saloon: some of the English attempted whist; the gambling seemed to be confined to a set of Brazilians—Rio tradesmen as they were described to me, to whom deep gambling is a common

pastime. This morning they are playing an innocent-looking game on deck, "*Bull*," with leaden disks, something like the game of quoits; the game is made the opportunity of plenty of betting. We expect to arrive off the Tagus to-night or to-morrow morning, and at daylight take a pilot on board, so that we shall be at anchor at Lisbon by eight o'clock.

Nov. 14, at anchor, Lisbon.

Soon after midnight we were off Lisbon Rock, blowing off steam, tossing about waiting for a pilot; at daybreak he came on board and brought us in. We have just gone through the botheration of pratique boat, custom-house boat, and the many official impediments to free travelling. Most happily we are *not* in quarantine, as everyone expected would be the case; so as soon as breakfast is over Gray and I are going on shore to see what we shall see till 3 P.M., when we start again. We passed the squadron of the English fleet at anchor in the Tagus, saluted the Admiral with dipped ensign, which was returned, the band on board the Flagship playing our national anthem; the sight and well-known melody stirred our blood, and brought out a genuine English cheer: it did us good to feel that at the capital of a foreign power we were not without manifest evidence of the strength and ubiquity of the British flag. What a grand position England occupies throughout the world! What an enormous influence is hers for good or for evil! thus some of us soliloquized and discoursed; the sight that we saw turned our thoughts into another channel and sent them right back to dear old home. I have no time to tell you passengers' gossip; we have it *satis superque*, some foolish, some amusing, none specially edifying.

The Duchess we have on board is an English lady, a widow, whom the Duke of —— met at Bath ; she clearly was much interested in everything (speculating doubtless as to her untried future) as we steamed up the Tagus. This morning the Duke's flag is hoisted at our fore, and the indications of his rank begin to show themselves : boats arrive containing officers in full uniform, eight or ten, come to pay their respects ; then his large barge with eighteen oars, magnificently fitted up, came to take his Duchess and himself on shore : poor lady ! or let me say happy lady ! for we all trust that she may be as happy here as in her old quiet English home.

This life at all events is most *healthy*. Reading and writing seem impossible ; I spend much of my time in walking about, especially when the sea is just a trifle rough ; for then the ladies and some of the men are driven below, and there is room for an uninterrupted stretch on deck.

They say we are sure to have to go through some days' quarantine at Rio, as we must touch at places where cholera has been bad and is now only abating ; this is the one little cloud on our horizon.

We have had several invitations to pay visits, and visits of some duration, to Madeira, Pernambuco, and the Plate : we are not likely to avail ourselves of any of them.

* * * * *

I am now going on shore to deliver this letter at the post-office and then set out to see the lions of Lisbon. I will begin another letter on my return on board.

Always your affectionate Son,

HAMLET CLARK.

‘The Tyne,’ Lisbon,
Saturday, Nov. 15, 1856.

MY DEAR FATHER,

Our letters were posted before eleven o’clock, and we had the day before us. Gray was not quite well, so he set out in quest of an English doctor that he had heard of; I got a guide from the English hotel, old, deaf, and most innocent of English, and made him take me to places I had been told to visit. Lisbon is fair-looking as to the exterior, but is very dirty indeed in many of its details; London is very common-looking on the outside, but cannot approach Lisbon in filth. The churches do not require much description; they seem in all Roman Catholic countries to be similar in type—gorgeous interiors got up with a taste that at least is not English, with a great deal of showy gilding, with many pictures and looking-glasses, artificial flowers and bright colours: some of the details are really beautiful, but there is far *too much of it* for simple northern tastes. The worshippers are curiously the same in manner as those that I have noticed elsewhere, profoundly reverent on occasion in outward demonstration, with genuflections, semiprostrations, and the like; but if you more carefully watch their worship, it is quite obvious that their attention is anywhere but with the service: they do what they are taught to do in worship of their Maker, and they do it as well as they know how; the stream never can rise above its fountain, nor a people above its teachers. It is very good for protestant English

to see such sights; they make us thankful for our clearer perceptions and better knowledge, and we learn, moreover, to cultivate a large-hearted charity towards those who oppose themselves to us. We at home, I think, often fail here: in our zeal for truth, and our confidence that of all sections of the Church ours is the possessor of the truth in all its aspects, we forget that others are as honest in their zeal and in their confidence and their study of the subject from their point of view as we can be.

But to go on. The cathedral here disappointed me. There were some little side chapels that were beautiful: I saw one very curious sight; in one of the cloisters at the back of the cathedral is a long slab of stone or wood, on this are placed at any time any dead bodies whose relatives are unable to afford the cost of a funeral: all dead bodies placed here are buried by the Church. Yesterday there was lying on it such a mite of a baby-corpse; I quite thought at first it was a little doll: it was dressed up in white lace and silk, with a garland and sash of artificial flowers, and painted cheeks and lips; it was only by taking hold of the hand that I could convince myself that it was real flesh: well, all this was pretty in its way, and, as an index of a certain professed care which this form of religion takes of the body as well as of the soul, interesting; but my next sight was really amusing, as a remarkable proof of the quaint superstitions that are fostered in the Church of Rome.

Long ages ago the saint to whom the cathedral is dedicated, and who by the sanctity of his past life gave existence to Lisbon after he had become a corpse, lived and died somewhere on the sea-coast of the country; after

his death his body remained for some cause unburied; but a flock of ravens discovered it, and, discerning the virtues of the saint, they protected it, and in some unexplained mode floated it down to Lisbon, where it was seen and buried. In recognition of this holy and miraculous act, the devout Church has ordained that these birds shall always be inmates of the cathedral; and there they are now, the descendants of the miracle-workers of old! first-rate specimens as to the flesh, fat and impudent as only ravens can be, knowing well that nothing but good is in store for them, and looking at visitors as if they wished that they should know it too. This is the *tale* as told to me; the fact is certain—ravens, fat, sleek, and tame, are living in the cloisters of the cathedral. * * * * *

As to myself, I am very well; the whole day is taken up with meals and walking and sleeping and talking; it is not much reading or writing that I can get.

Monday, Nov. 17.

Yesterday we had Divine Service on board, I, as the only clergyman passenger, officiating: several Roman Catholics, Brazilians, attended, and many English; of the latter, however, not a few, as I am told, absented themselves. We had service on deck under an awning with canvas sides; everyone seemed attentive, and many made the responses audibly: the middle portion of the vessel was crowded with lookers-on, smoking and commenting in whispers. I offered to have a second service either forwards or in the saloon, but the Captain declined: we had the crew and firemen present (such as were off duty); service was over at 11.30 A.M., as I gave them no sermon; and the rest of the day was spent more like an English

Sunday than I had expected; neither card-playing of any sort nor gambling is permitted (indeed absolutely forbidden, as I was told, by the company's rules). The Roman Catholics and some of the Protestants had their newspapers; but several of the English, I was glad to see, brought their Bibles and Prayer-books out instead of their novels, and read them on deck or in the saloon.

The Bible Society sends out an agent for Brazil, one of our fellow travellers; he with his wife and children are about to find a home in Rio Janeiro, he spending his time either in the city and suburbs, or in itinerating in the provinces. He is quite companionable; men are not obliged to agree in everything in order to be pleasant acquaintances: this ought to be so under all conditions of life; at all events it is so when travellers converse and argue away from home.

The evening was spent in much confusion: about noon we sighted the Desertas, and arrived at Funchal about 8 or 9 P.M.; after firing our cannon as signals several times and sending up rockets and burning blue lights, boats came off from shore and took away all our poor invalids. May better health be soon theirs under these sunny skies! The ship was not quiet till nearly midnight.

Of course, in such a crowded varying life as this, I could give you page after page of gossip and anecdote; but, with all the inclination, I have not the means of writing amply. One idea, however, I will give you, the experience of the last day or two; it is this, whenever any one having girls to transplant to another country is looking out for some *mater familias* to whose charge they may be intrusted with comfort during the voyage, let the first (not the

second, but the very first) requisite be the *sailing*-qualities of Madame: she may be most superior, and discreet, and watchful, and anxious to do her duty to her young friends, but all this avails nothing at all if she is unhappily confined to her berth by sea-sickness. One or two ladies here have been making acquaintances which older and wiser people could see at once were not desirable, by no fault of their own, but by almost pressure of circumstances; they had only one friend on board, who was taking them to their family in Madeira; and she is always ill in bed below; they cannot be for ever with her in her berth: under these circumstances the generality of chance acquaintances are those which are the least eligible.

This morning Gray and I and De Mornay, one of our fellow passengers, went on shore. We made friends with the steward over night, were up at 5.30 A.M., got an early breakfast, and had to be on board again by nine o'clock, the hour of sailing. We got some beautiful glimpses of Madeira mountain-scenery, and had (not the least of the advantages of our trip) a good steady hard walk of an hour or two. All the roads leading into Funchal seem to be lined with dreary stone walls for miles; so we could get only glimpses of paradisiacal beauty, and no insects. When we got back to the ship we found on the deck a crowd of men, having pretty inlaid ornaments and other things (as deck chairs) to sell,—and around in boats several amateur divers, whom the passengers were enriching by tossing small coins into the water; they jump in, and catch them long before they get to the bottom. The water is so clear and bright, and the surface so smooth, that we can see their brown bodies some three or four fathoms down.

Have I told you our hours on board ? I get up at seven, walk and lounge about till nine—the best part of the day for walking-exercise ; at nine breakfast ; from 10 till 11.30 the saloon is fairly at liberty for writing ; at noon luncheon, then deck again (walking, or reading, or talking) till four, when we dine. At 7 P.M. tea, and bed about ten : all lights are put out soon after. The great disadvantage, or rather the *only* grievance I can complain of, is the almost total absence of convenience for reading and writing below, except in one's own cabin, which is dark and has no table. The ladies' cabin is turned into a nursery, with its noisy 20 or 25 occupants and their bevy of nursemaids ; so the ladies have to join the gentlemen on deck or in the saloon between meals ; thus the saloon is full all day long : between our meals the nurses and children and deck passengers have to get theirs ; so you see it is the headquarters of food, and noise, and smells throughout the day. However, I do not mind it : the food is all very good, well cooked, and fairly served ; breakfast consists of several hot dishes, besides eggs and more trifling adjuncts of marmalades and other Brazilian confections ; at luncheon we have cold meats ; and at dinner almost everything ; yesterday we had on the table, according to the bill of fare, twenty-seven kinds of cooked meat, and puddings, preserves, and fruits in proportion.

Tuesday, Nov. 18.

We are now within sight of Teneriffe. If the weather had been clear yesterday, we should have seen it last evening ; the Peak is often visible 150 miles off. We shall arrive at Santa Cruz about noon, 25 hours from Funchal. They

say there is hardly any chance of going ashore. The captain said this morning at breakfast (Gray and I are close to his end of the table, and so get scraps of intelligence from the fountain head) that he had perfectly clean bills of health from both Madeira and Lisbon, but that his experience was that in nine cases out of ten the Company's steamers were not allowed to land through-passengers for a run on shore at this station. How charmingly Spanish! It reminded us of that most Catholic nation's treatment of us in the Bay of Malaga last spring. The view of the island, anyhow, is splendid: we are now about thirty miles off; and the grand Peak towers up to heaven, above two separate banks of clouds, about twelve thousand feet high. The weather is fine, and has been so all the voyage; the temperature is not at all oppressive, not so hot as it sometimes is in England; but for the last two days the weather has been cloudy.

I shall post this at Saint Vincent, and not here at Santa Cruz; for they say that these idiotic Spaniards fumigate and splash letters without mercy. The Portuguese are better, and have *more* rational notions about infection, though they are bad enough.

Wednesday, Nov. 19. Teneriffe.

At noon yesterday we passed close along the shore, which seems (as seen through our telescopes) dry, barren, and almost entirely uncultivated, except where the cactus is cultivated as a pabulum for the cochineal-insect, now (and since the terrible grape-disease) an important article of commerce. About 2 P.M. we arrived at Santa Cruz, a clean-looking little town on the coast, where Nelson lost

his arm, A.D. 1797, and where in the churches several British colours are still to be seen, a memorial to this generation of the visit of his fleet.

Most of us had arranged to go on shore, Mrs. — and De Mornay to buy Teneriffe wine, the latter having a wine-introduction,—Gray and I for something far less venturesome, a ride up the country,—others to make purchases of different sorts. But it was just as the Captain had predicted; we were in quarantine! No single passenger was allowed to set foot on this inhospitable shore, and all because our papers from Lisbon (in every respect perfectly regular and complete in themselves) had not been *visé* by the Spanish Consul: we had clean bills of health from everywhere; there was no single person on board with a shadow of an illness; and yet, for what might have been an informality perhaps, they kept every one on board, and prevented the tradespeople of Santa Cruz receiving some £50 or so in gold in the way of business! If you want a good, continuous lesson in patience, go and live among the Spaniards; whatever their blue blood may have taught them, it has not taught them the simplest rudiments of political economy.

But, if “man is vile,” it is only man: everything else seems full of beauty and interest. As to the scenery, among those mountain-slopes it must be splendid. Humboldt, who had travelled over some of the most glorious regions of the globe, said that even he had seen nothing finer*. In the *botany* of the islands there is very much

* “Under the torrid zone I found sites where nature is more majestic and richer in the display of organic forms; but after having traversed the banks of the Orinoco, the Cordilleras of Peru, and the most

indeed of special interest. In the first place, there is the grand Peak itself, so high that several sorts of vegetation, each entirely different from its neighbours, are met with at the several altitudes on its slopes (as it were in great zones or belts), offering the greatest possible variety to the botanist, and all within the limits of a few hours' ride. At the foot of the Peak, on the lowest slopes, is a climate in its most sunny parts hotter than Northern Africa; here the sugar-cane and banana and the date-palm will grow, and that wonderful dragon-tree, the most indigenous of all indigenous trees at this our epoch of the world's history. Then comes a region with heat equal to that of the South-European climate, where the vine flourishes, or once flourished; and then (about 4000 feet high) comes the region of laurels and other trees. At this altitude it is always damp; clouds gather here nearly every day, and thus vegetation is rank and luxuriant; here, too, are found the lovely ferns of Teneriffe. Then come the regions of heaths and brooms, then of lichens, then of bare dry rock and cinder. Seven hundred different species of Canarian plants are known to botanists, of which one-fifth at least are indigenous. The insects have been hardly looked at; but with such a fauna it will be strange if a good worker cannot make a truly interesting list of Coleoptera: would that I could be that worker!

But the greatest wonder of the island is the far-celebrated dragon-tree, certainly one of the oldest, if not quite the oldest, living inhabitant of this globe, an object of

beautiful valleys of Mexico, I own that I have never beheld a prospect more varied, more attractive, more harmonious in the distribution of the masses of verdure and of rocks than the western coast of Teneriffe."

veneration (as tradition reports) to the former race of men that inhabited the island. It measures round the base of the trunk about eighty English feet, and now is quite hollow from age. The isolated geographical locality of the tree is as remarkable as its vast age: how it ever got to Teneriffe is one of the puzzles which has (like every other puzzle of nature) a solution, and which will be revealed some day to the truth-loving, self-denying student of nature*.

I have heard a good deal about the terrible grape-disease, the "*Oidium*," which so utterly devastated Madeira and Teneriffe a year or two ago: in Madeira especially the ruin of vineyard-proprietors is complete; and it would seem to be almost without hope of recovery in this generation. I was struck by a remark that one man, who evidently knew the subject, made: he said, "Some day or other the poison of the disease will have died out; plants will grow, and grapes will be produced just as heretofore; but not probably in our time. Then, however, from whatever stock the young vines may come, the civilized world

* I have just seen a very interesting paper by the Rev. R. T. Lowe, "On the Fruits and Vegetables of Madeira," &c., in which he says that the Dragon-tree (*Dracæna Draco*) is by no means confined to Orotava, or exclusively indigenous even in Teneriffe. "It is perfectly indigenous in each of the three groups of islands. It is found wild still on the sea-cliffs of the Madeiran, and on the higher mountain-crags of the interior of the Canarian and Cape Verde islands; and in all it is often planted here and there in gardens or near houses, though little or no use is now made of its medicinal gum (Dragon's-blood)." The same paper reports on the present condition of the vines in Madeira, after the ravages produced by the *Oidium*, and the progress of the cultivation of cochineal in the Canaries. (Journ. Royal Horticultural Society, 1867, vol. ii. p. 161.)

may be sure of getting the real old Madeira wine once more. The quality of wine depends always and absolutely on the locality in which the vineyards are cultivated, *not* on the stock whence the young trees are derived. The same vine which in the south of France produces French wines, will, if transplanted to the Cape, produce Cape, to Madeira, Madeira, to Teneriffe, Teneriffe wine." This no doubt is true enough of the vine as a general rule; for we know it to be true of the special characteristics, either good or bad, that always obtain with regard to the more limited wine-producing districts of Europe; but it is striking and, I think, singular: insects can be transplanted, dogs and cattle, without losing the distinctive specific character that belongs to them in their former home; even of plants (roses for instance, and many English garden-flowers) many can be transplanted so as to become acclimatized and the constituents of English-looking gardens in New Zealand and Australia.

Now that we are well away from those inhospitable islands the weather is quite fine and sunny, and the sea perfectly calm; we travel along night and day at the constant rate of ten knots an hour, and all the time without any unpleasant rolling or tossing of the vessel—this much to our personal comfort; for now the saloon-windows, which till we got to Madeira were carefully screwed and panelled up, are opened wide, admitting pure fresh air into the saloons and cabins. There is plenty of amusement on board to any one who cares for it: last night we were invited to a mild champagne supper to be given shortly by the Admiralty agent in his cabin,—six or eight ladies, and, of the men, the captain, De Mornay, Gray, and myself;

we thought it better to decline; we shall see nobody whom we don't see twenty times every day, and perhaps whom we are already almost tired of seeing.

Everything on board is very clean; no insect-pests plague us, no mice or rats, nothing but a few cockroaches, who are made bold by the warmth of the temperature, and are no annoyance whatever.

We have few "sensations" or subjects of excitement on board; yesterday we had one, which I describe just to show how fidgetty and unbalanced the minds of even sensible men may easily become by the irritating monotony of a voyage, and how small a cloud will then make a big storm.

Hitherto during the voyage smoking has been allowed on all parts of the deck, aft as well as forward; and certainly there has been plenty of it. One of our English passengers, who has a delicate wife, complained of this to the captain; and so a notice has been posted up this morning setting apart certain parts of the vessel only for smokers, and forbidding smoking abaft the engines; the officer of the watch is charged with the carrying-out of the rule. But how intensely indignant is every one on the subject! It is a real tempest, although in a tea-cup! the poor gentleman is sent to Coventry; notwithstanding that even some of the smokers admit, like myself, the arrangement to be an improvement, inasmuch as there is abundance of room forward, and now it is possible to sit on deck without the imminent risk of being half stifled by villanous Brazilian tobacco: I have no doubt the old system will obtain again very shortly; in the meantime our poor fellow-passenger is cut by some, and reviled or

laughed at to his face by others ; of course I have nothing to do with the matter either on one side or the other.

A dance on deck ! this is another, even a still greater sensation : the young ladies from Brazil have sent a deputation with their compliments to the captain, petitioning that on an early evening the after-deck may be made over to them. Of course our old captain smiled his brightest smiles, and offered them the whole ship and her commander too ! everything was at the service of such passengers as he had the privilege of conducting across the water ! At once the passengers, young and old, ladies and gentlemen, are in a bustling semi-feverish condition : the ball is to be to-night ; some are engaging partners, some are helping the sailors to rig up a ball-room on deck, some are decorating it with flags ; the ladies are deep in consultation among themselves. We are all very much like grown-up babies on board the 'Tyne,' angry with nothing, made happy by nothing !

We have now for some time been in the tropics : the air is sensibly warmer, although, owing to the trade-winds, by no means oppressive ; in our cabin the thermometer has never been higher than 75°, not at all hotter than an ordinary summer day in England, indeed not so hot. In a week or so we are to have it 95° in the saloon : I don't know how I shall stand that, but I am preparing for it by not changing at present any of my ordinary English clothes for lighter ones. I often think of you all in England shivering in the cold fogs and rains of November, while we are basking every day in sunshine, and enjoying the most delightful weather—never too hot, never rain, no

dews at night, just cool enough late in the evening to suggest a cloak or extra wrap on deck.

We are now looking forward to arriving at our next halting-station, St. Vincent; we both are hoping to be able to find out something of the entomology of the island, if only three or four new species; for of that group of islands nothing is known, and everything will be of interest.

We have to take 150 tons of coal on board. On the island there are a dozen English labourers sent out by the last mail with an officer, and besides these there are the natives, who may be all dead with cholera; no one can tell till we get there; so there is every probability that we shall remain at anchor during one whole day.

After St. Vincent comes the *longest* part of the voyage, the run across from St. Vincent to Pernambuco, which will take seven or eight days,—thence in less than two days to Bahia; then three days more only, and we arrive at Rio and take final leave of our fellow-passengers bound for the Plate.

I find that the letters of introduction which I had from Liverpool are all of them good ones; all the firms are first class: it may be that we shall not use them; but it is a satisfaction to have the power of getting assistance in one's possession, if ever such should be necessary.

There are the most magnificent ideas of us both among the passengers: we are to travel across the continent of South America, to remain abroad for three years, to achieve wonders of travels in Peru! and goodness knows what other lands, and, finally, to return home and be

famous ever after. We have had a good laugh at our sudden elevation.

I have just heard what is the daily butcher's bill to the company for our food : we are on board, passengers and crew, about 260 persons. To sustain life and strength, every day are killed, as I am informed, one ox, one or two sheep, one pig, geese and ducks *ad lib*. Our commissariat, at all events (whatever may be the accuracy of this bill of fare), is well arranged. I have one great grievance against the company, and only one ; and as it is felt by all the English more or less, I will mention it, though I do not know that the company could help matters : fellowship at the meals in the saloon is of course determined by equality of rates of passage-money ; *i. e.*, all first-class passengers live together. Among the Brazilians or Portuguese on board there is a large number who, by habit, education, and absence of all refinement, would be much more at home in the fore-castle, among the labourers &c., than anywhere else, but who if they have nothing else have wealth ; and so of course they take first-class tickets, and thus take all their meals with us. We have too many passengers, even if all were decently refined : under pleasant circumstances a perpetual crush is not agreeable ; but now, as we are, it is my doom to have to take every meal (one or two other civilized English being near us) in the midst of a set of vile fourth-rate barbarian Portuguese or Brazilians—mechanics they must be, or still more vulgar shopkeepers, who howl at the waiters, greedily seize on every dish before it is put on the table, pile up their own plates with different sorts of food till

the layers of accumulated provisions almost equal in height the diameter of their base, and all the time audibly masticate and bolt down their supplies like dirty puppies. Yesterday we gave them a hint; for really meals under such circumstances were a burden and an apprehension to us; we deliberately handed to each every dish within our reach, and then ranged the dishes close round their plates elaborately, ordered from the waiters other dishes from a distance, bread, &c., we ourselves all the time remaining without anything whatever on our own plates. After they had helped themselves to every dish handed to them, and had begun to accumulate besides proffered oranges and fruits, the animals attained to a ray of perception and understood our meaning; the rest of their meal was more seemly; but pigs of yesterday are pigs to-morrow, "*naturam expellas*" even by ironically fostering nature, "*tamen usque recurrit*," and I fear that our neighbours have very thick as well as coarse skins. But what a pity it is that decent people are victimized by such a bedding together of clean and unclean! and how simple the remedy appears to be!

While I am writing in the saloon at night, at the next table, close to my side, are eight Portuguese or Brazilians gambling over some game of cards: it is a game at which the stakes are so high that £20 or £30 are won or lost in a few minutes. Each of the men has a small heap of gold coin before him: now they are altercating in high tones; for a moment there is a lull of suspense; then comes a sudden universal howl or shout as the stakes are swept up by one of the players. This has been going on for an hour, and I leave them at it.

I adjourn on deck for a discussion, by appointment, with Mr. —, a truly good, narrow-minded Christian man. He has been offending many on board by giving them strong tracts on religion, and forcing conversations on religious subjects. I have myself noticed nothing of his obtrusiveness, and rather like him for his sincerity. To-night we are to debate between ourselves whether those who dance (we have just had a ball here) are the victims or the emissaries of Satan and on the highroad to perdition, or not. He has been submitting this view to others, to their displeasure; he broached it this morning to me, and I proposed its consideration between ourselves this evening. You know that I cannot dance a bit, nor indeed have I ever to my knowledge even seen any one dance; but I think I am more than a match for him, and I am sure that his smallness of soul does harm, as must always be the case, to his own cause.

I post this to you at Saint Vincent's.

Always your affectionate Son,

HAMLET CLARK.

‘The Tyne,’ St. Vincent Islands.

MY DEAR FATHER,—

We arrived here in the middle of the night ; after our arrival sleep was impossible, owing to the cessation of noise of the engines and paddles. At daylight I was on deck ; we were anchored in a bay, shut in entirely by volcanic-looking hills : the steward gave us an early breakfast, and then at once Gray and I, with others, went on shore. The town or village is simply a collection of cottages ; I could see no shops whatever, except for the sale of abominations in the shape of intoxicating drinks. There are from twenty to thirty white people on the island, all the rest are either blacks from the African coast, or Mulattos ; the only beings we saw as we walked past the rows of cottages were a few very barely clad men and women, a sprinkling of soldiers, and several naked children, all black. It was quite sad and depressing to hear of the great desolations recently caused by the cholera : we went off to the inn or hotel (the hovel does not deserve either appellation), it was shut up ; *every one was dead* ! Where is the post-office ? shut up ; every one is dead ! A church was being built, but now is without any workmen ; all are dead ! architect, masons, labourers, all are gone. We hear that 750, a large proportion of the whole population of the islands, have been swept away by cholera and concomitant diseases during this summer.

After we had viewed the desolateness of the wretched town, we started for a walk into the country : but country

is certainly the wrong name for it; it is anything but country, nothing but dry sand, or acres after acres of loose stones, till you get to the rock itself. Here and there are a few parched-up plants, and in one of the valleys were a few low bushes; but we did not see a single tree, and hardly a single flower. The reason is plain, the rainy season is not come, and except in the rainy season no rain falls; and, indeed, there have been times when the island has been without rain for three years together; that, of course, means failure of all crops, famine, and disease. In the ravines they say trees will grow (bananas, canes, &c.); and in the ravines, to any one who has the courage to come and explore them, would be found at the proper season nearly all the entomological fauna of the islands. There is nothing here, where we have been working; during the whole day we have not taken more than twenty species among us*. I worked as hard as I could, but there was hardly anything. If it were possible for these islands to be inhabited by English, it is probable that everything in a few years would be changed. If rain-water were stored up and trees planted and watered so as to create a vegetation, these would soon change the climate, attracting clouds and bringing sufficient rain to

* Since the above was written, Mr. Vernon Wollaston has described the fifteen species of Coleoptera taken by us on this visit in the 'Annals and Magazine of Natural History,' 1858 and 1861. More recently the Coleoptera and Botany of the islands have been very thoroughly investigated by Mr. Gray, Mr. Wollaston, and the Rev. R. T. Lowe, in Mr. Gray's yacht 'Garland.' The entomological results, which are highly interesting, are being examined by Mr. Wollaston, and will be published by that gentleman.

cause fertility : so, at least, I believe ; but with Portuguese, what is must be.

I went on board again in the middle of the day to get something to eat, for nothing was to be had on shore ; and then had another ramble till six, when the mails were to be on board.

On Sunday morning the coaling was not completed, and so we are detained here, and the whole vessel is in dire confusion and dirt ; crew and black men and even black women are pressed into the service : but the work will not be completed till nearly noon ; so some eight or ten of us borrow a ship's boat from the captain, and spend an hour or two more on shore.

Nov. 28, 1856.

Yesterday we passed the line, and, I am thankful to say, without any absurd folly ; all practical joking is forbidden by the Steam Company. I wish you could see, just for once, the glorious sunsets of these latitudes : I always go on deck for the purpose of admiring and studying them, —such a richness of colour, or rather of colours, infinitely richer and more varied in hues than under English skies ; and the clouds are no less singular in their supreme beauty than in their quaint and elegant forms.

Dec. 1, 1856, off Pernambuco.

Yesterday morning we cast anchor at Pernambuco, outside the curious reef, which runs for hundreds of miles at a short distance from the line of coast. The ship was a perfect Babel of noise, and hurry, and heat. Gray and I were glad enough to escape from it all for a few hours, shake off the weariness of our long run from Saint Vincent,

and set foot for the first time on American soil. We landed in the midst of some of the vilest stenches that noses were ever subjected to. Gray went off into the town, I walked by myself to a suburb, Olinda, the old town ; the sun was very powerful, but I was defended by a stout umbrella and trudged on. I saw little to repay me for my exertions ; the road lies along a marsh full of mangroves, an ugly shrub of some ten or fifteen feet high, which grows only near the sea or tidal rivers ; a more unhealthy-looking tract of country it would be hard to conceive. I walked to Olinda and then walked back again ; no insects of any sort could I find. A small species of crab by millions crowded on the vast expanse of mud-banks : a few splendid flowers were worthy of admiration ; one especially compelled notice, a giant convolvulus-looking runner, with flowers as large as a coffee-cup, in colour purple tinted off to exquisite blue ; a single plant extended along the sand for a distance not at all less than in our Harmston croquet-ground, from post to post : for the rest the scene savoured of decay, and musquitos, and pestilence. I got to the landing-place and found Gray. We had a walk through the town, and found very much to admire and learn in the fruit-market,—*Bananas* a hatful for a half-penny ; *pineapples*, one mill-rey, or about two shillings, apiece, splendid-looking, fresh, and full of fragrance ; *mangoes*, water-melons ; *caju* (a fruit like an apple with a nut at the end) worthless ; *jacà*, an immense affair, as big as a bolster, which grows from the stem of the tree ; *farhina*, the common food of the lower orders, the produce of the Mandioca tree. It is a curious fact that the *juice* of this tree is most poisonous, but that the dry fibrous residuum that is

left when this poisonous juice is pressed out is most nutritious, and a staple article of diet: as yet I have not tasted it myself, although it is on the table every day, and the Brazilians eat it to everything; it has exactly the appearance of sawdust.

Others of our party took carriages and drove out in another direction into the country round the town; and, judging from the splendid flowers they brought back and their descriptions of all that they saw, they must have got into beautiful scenery: the idea of "shady lanes" which they discovered and in which they roamed was most tantalizing.

Last night about eight o'clock we had a marvellous escape from what might have been a terrible accident; it was quite dark, nearly every one was on deck walking and smoking and gossiping, when we heard a shout from the distant fore-castle, "Helm hard a starboard!" "Hard!" I was near the helm at the moment, and jumped across with a Frenchman to help to jam the wheel hard up; these big vessels at ten knots or so an hour cause such a pressure against an oblique rudder, that four or even six men are wanted to make the rudder exercise suddenly all its force. Well, we got the helm hard up; and the moment after we discovered the reason of the sudden order, a schooner with all sail set was on our bows meeting us, and only *just* cleared the paddle-box! I think I never heard such a fearful howl or wail before as that which arose from the deck of that schooner; there were men's voices and women's voices, and among them all rang out, crisp and clear, an English voice cursing and upbraiding! The fault was entirely and absolutely their

own: they carried no lights, they could have had no look-out; our lamps were brilliant, we saw them long before they saw us, and then as soon as they saw us they put up their helm the wrong way, and there they were right across our bows! ten seconds later, and we should have cut that vessel right down, and sent her to the bottom at once, without, as the captain said, our own 'Tyne' feeling the least concussion; probably every one on board of her would have been lost. This teaches us two lessons, how thoroughly careless are the captains of many ordinary sailing-vessels, and how safe, humanly speaking, we are, and how well our sailors keep a look-out.

Dec. 1. The heat is come at last; I do not think it particularly oppressive, though many on board seem to be quite overcome by it. This morning the thermometer is 87° in the coolest shade, and we have no wind and no fresh air, for we are running with, and not against, the wind: people are lying about all over the ship under awnings or any sort of shade, smoking or drinking iced wines, or eating iced fruits.

Let me show you by an illustration how it is that so many English die of fever, apoplexy, &c., in hot countries: one of our poor sailors was struck down by the sun as he was rowing across Pernambuco harbour; he was laid at the bottom of the boat and brought on board, and has never been conscious since. The doctor tells me that he has bled him, applied ices, and used all means in his power, but that he fears he will never get over it, or indeed last many hours. Certainly the heat was very great that morning, as I found out when walking to Olinda; but in the open harbour, where there was a brisk

breeze, it could not have been so bad as among mangrove-trees, where there was not a breath of air stirring. On making inquiry into the case, I found that the man was actually rowing all the time *bareheaded*, without any sort of protection to his head from the almost vertical rays of the sun ! and, moreover, that a short time before, while on shore, he had drunk off a whole quart bottle of porter ! After this, there is no matter for surprise at all in his seizure ; but the incident plainly reminds us of the two great difficulties that English have to contend with in tropical countries,—first, they are constitutionally so obstinate that they persist in English habits of life in a climate that is just the opposite to that of England ; and, secondly, they are so reckless that in order to satisfy the craving for thirst, and to meet the drain that the climate makes on their energies, they will drink to excess intoxicating liquors, although every one of them has been told often, and *knows* that strong drinks are in a country like this absolute poison. Since I came on board, I have not once tasted wine, beer, or spirits, except on one occasion a thimbleful of champagne with a fraternizing neighbour. Mr. Gray has abstained also ; and I verily believe that it is mainly owing to this temperance that we both are so well in health (while others have to seek the doctor), that we feel the heat so little, and that my eyes (after my grievous accident) stand so well the glare of sea and skies.

At this moment, while I am writing in the saloon, four Brazilian shopkeepers have come down and have called for drink : they have seated themselves next to me. I will tell you the ingredients of their brew : the basis is

strong black porter, tumblers half full ; to this half tumbler of porter they add two spoonfuls of sugar and a wine-glass (more or less) of neat brandy ; they then fill up with water. After they have drunk a couple of tumblers, or perhaps more, of this, they will go on deck again, and complain of the heat !

We are both perfectly well in health in every respect ; Gray is certainly much better than when we left England. My one only trouble is lack of suitable clothes, which I must try to supply when I reach Rio.

Bahia, Dec. 2, 1856. This morning I hear that during the night we were as near as possible running down another vessel, a brigantine, and from the same cause as before, a want of look-out and a want of lights on the part of these ill-found little vessels ; it was our alertness and not their precautions that saved them. Before day-break we hove to, and at sunrise entered the bay of All Saints on the shore of which Bahia is situated : at ten o'clock all of us went on shore ; Gray and I to the country as soon as possible, after we had delivered two letters of introduction, one to the consul, who most kindly gave us much practical information, the other to Mr. Thomas of the firm of Messrs. Napier of Liverpool : I heard after I had got on board again that this gentleman (whom we did not find at home when we called, and whom neither of us knew personally) actually spent above an hour riding about the town looking for us, although it is packet-day, and to him the busiest day of the month. We were the more sorry that we had been so unfortunate as to miss him for our own sakes, as well as from a regret that we had taken up so much of his valuable time.

I *cannot* describe to you the beauties of scenery like this. At some moments I could fancy that we had jumped right out of this dirty world, and found ourselves all at once in the old Hesperides (the islands of the blessed), where the fruits are ever ripe, the sun is always bright, the shadows invite repose, and plants, and birds, and insects, and all created nature the perfection of beauty ; but as for *man*, as soon as I think of him, I am back again in my natural existence ! These negroes smell so unutterably, and have such vacant incapable faces, and are so devoid of any sort of beauty of feature that they would spoil *any* landscape, if in the foreground ; at least they spoil this. It is strange to our unsophisticated minds to remember every now and then that we are in a land of slavery, and that all these men and women are so much private property, and may be bought and sold just as you sell your horses or sheep at home. I suppose I shall get used to it, though certainly I shall not invest. The men here, as to physique and build, are fine-looking animals ; their dress trousers and jacket : the women are in dress and appearance their appropriate companions ; all have scars on the cheek or shoulder, a few are marked with the scars of the lash, and one or two I have seen wearing broad iron collars as a punishment ; but they seem happy enough, more jolly and free from care than the whites.

At one lovely spot in the suburbs, where there was a pool of water, I came upon a black mass of female humanity (some eighty or more of women and girls) washing clothes and drying them in the hot sun ; but oh ! the cruel way in which they murdered the linen, beating

it with rough sticks, pounding it with stones! and amidst a chorus of screams of laughter and noise that was very far removed from English ways! We found some nice insects by the side of that pool as well as some strange women-kind: the laughing and the joking were not a whit stopped by a sense of our presence. When we got on board again we found three gangs of niggers, twenty or so in each gang, getting in coal and getting out cargo; they made the whole ship resound with their merry choruses. Probably the negroes are not capable of very intense feelings of any sort (except as children can feel); at all events, those that I have seen cannot be very unhappy: they excite my curiosity rather than any special interest. I cannot as yet learn much about them: the English here say they have no religion or real religious ideas at all; they have a make-believe, a sort of debased popery dwarfed down to fetishism, or fetishism in the guise (as to images) of popery.

Bahia, as a town, is far superior to Pernambuco; the latter stands *low*, with the worst houses facing the shore: from the deck of a ship in the offing not more than one-sixth of the town is visible; but at Bahia the coast is high; the town extends from the edge of the bay to the top and beyond the top of the range of hills, and is broken by green gardens. The bay is very fine, fish abundant, sharks and all; every now and then a sailor goes overboard to bathe whole, and only a part of him comes back again: so there was some excitement to overcome the heat this morning when our paddle-wheels crumpled up a shore-boat and sent four people into the

water ; their black woolly heads bobbed about for a minute or two and then they were picked up, but the boat and the rest of its contents were all gone.

When I was on shore I went into the cathedral, a cool resting-place. I saw there an arrangement as secularly sensible as it religiously was undevotional ; the area near the doors was covered with groups of mahogany chairs, which were most of them occupied by well-dressed men, gentlemen, pleasantly chatting one with another in subdued voices with their hats off, but with no other semblance of outward recognition of the place. A cool rest and a glass of cold water which I got also are very grateful as a parenthesis in a hot walk.

December 5.

This morning before daylight the rain *did* come down ! the first rain since we have left England. I was hot and sleepless below, so I turned out, slipped on goloshes and a Macintosh, and had a splendid bath on deck. I think I never saw such rain before ; the wind rose, and drove bucketfuls of water at me : it was over very soon, and I turned in all the better for the visitation.

To-day is our last day on board the good old 'Tyne.' We have just given the captain an address, with the usual amount of honey and butter ; Gray and I headed it with our autographs. We are to get to Rio about ten to-morrow morning ; already the crew are beginning to drag about big packages and to get out passengers' luggage, and to prepare for an emptying of the ship of merchandise and passengers.

December 8.

Mrs. Johnson's Hotel, Botofogo
(a suburb of Rio Janeiro).

Here all well: we arrived on Saturday about noon, anchored off the coaling-island in the Bay, having passed scenery that was as lovely as it was strange: it was marvellously grand and beautiful; fine bold rocks jutting out into the sea, with palms and other unknown foliages clothing their broken surfaces with all hues of green right down to the water's edge. Very often I have been disappointed at the first aspect of scenery of which I had heard much praise; here, instead of disappointment, there is bewilderment and happy surprise—the half had not been told me. As soon as we had cast anchor, Mr. Glover, the representative here of a large English firm, came on board in his boat and took us both ashore. Gray came over here at once, three miles out, to secure rooms, while I stayed behind to try and get our baggage through the Customs and obtain possession of it; with a good deal of trouble I got it, though every one said I should not succeed, and got a rattling headache also, and by eight o'clock was riding in a carriage with all our traps on board to join Gray at this hotel.

On Sunday (yesterday) I went to the English Church here: a sadly small congregation, for which there seems to be quite sufficient reason.

To-day (Monday) I have been up the walk made famous to us English naturalists by the book of travels written by Gardner, the great Brazilian botanist, with whom it was a favourite excursion. At the back of the city is a range of hills, from the upper forest-land of

which water is brought down for the use of the inhabitants and shipping by an aqueduct of several miles in length: along the side of this aqueduct through the midst of the mountain-forest is a broad road; this was the road which marked our first real introduction into Brazilian scenery. We left for Santa Theresa at ten in the morning, and got back to the hotel at four in the afternoon, having been out for six hours in the hottest part of the hottest day they have had here yet; the thermometer in our room, which is cool compared with out-of-doors, is 89° in the shade. The walk was not fatiguing; I kept well under an umbrella: at one time my nose bled much from the great heat, but a good Samaritan whose suburban house was near found me out, and gave me water to wash away the blood, and Bass's pale ale and ice to restore my vigour. Mr. Wilmot and the kindness of his family to a perfect stranger will not soon be forgotten by me: that was the whole of my troubles. The entomology of our first trip was supremely exciting: we got nothing probably that is not most common and well known; but everything was new to us, and we saw everything, not pinned in cabinet drawers, but *at home*, just as it lives naturally; so when we got to our rooms you may imagine how we had a great emptying of collecting bottles and tubes and assorting of their contents, and how in wondering delight we passed the evening, every now and then looking at our captures and discussing their beauties, although we had hardly anything unpacked and could not put them away.

Now I will tell you of our temporary home; we are at one of the best, and, I fear, one of the most expensive

hotels in Rio, the most expensive city in the world. Our set of rooms on the first floor are two large bedrooms and one airy sitting-room, with plenty of shade and ventilation, all of them above twenty feet high. Our next-door neighbour on the same floor is the Prussian Minister. Everything is dreadfully dear; I had to pay twenty-one shillings to get here from the Custom House with our luggage, a ride of not more than three miles: a straw hat is not to be had for less than ten or fifteen milreis (a milrei, or dollar=2s. 3d.); a common wide-awake six or ten milires; a common uneducated black servant costs £40 per annum, with lots of perquisites. In the purchase of the ordinary necessities of life a shilling in England equals perhaps half-a-crown, perhaps three or four shillings, here. This is one drawback to the place; there are two others—one is the *great heat*, which, however, is never severely felt till the second or third year of residence (new comers have generally stamina enough to resist its influence); the other is the swarms of musquitos and fleas. Now while I am writing the former are singing and buzzing about my ears; however, it is no use making a trouble of them: when they are past bearing I begin an onslaught, in which I generally am victorious; till then grumbling does not help matters at all.

But, barring these three evils, everything is delightful; our present feeling is that we ought to stay here two or three years instead of a few months. You have no idea of the gorgeous *tout ensemble* of the living forms that we meet with on our walks,—butterflies in profusion of the richest or most dainty or most quaint colours; beetles like precious stones for brilliancy; bugs and flies gro-

tesque and of all hues ; ferns lovely (one hundred and twenty-one different species are found in one single locality, S. Theresa hill, the scene of our first walk) ; palms, cocoanuts, flowers, orchids, flowering-trees of all forms and hues and scents ! and all these, not as in an English greenhouse, single gems in the midst of more ordinary woodlands, but the component parts of a vast expanse of forest-scenery, each individual item of which is just as beautiful as they ! I cannot describe it ; I can only (as I often do) just sit down in the midst of it all and look and think, and feel it.

Some of our old travelling acquaintances, who are waiting here for the Buenos Ayres steamer, are about to make a party and ascend the steep Sugar-loaf Mountain, and proposed to us to join the expedition ; we had no difficulty in declining their kind suggestion. I for one have no genius for ascending precipices, unless you can prove to me that something worth having is to be got at the top ! Holding on for some hundreds of feet by husssocks of grass and chance roots, where a slip means broken limbs, is not in my line : if H. were here, it would be just the thing for him, and another feather in his cap.

It is nearly eleven o'clock at night. Gray has been in his room an hour ; I am sitting writing in the airiest of apparel at an open window ; the fireflies are gleaming in the dark like stray atoms or sparks of animated sunshine ; the musquitos are (thanks, perhaps, to the open window, only it is so deliciously cool) in heavy clouds and full chorus of harmonies (not all unisonous) round my lamp ; cockroaches as big as mice are racing noisily across the Indian matting ; strange sounds come to my ears from the distant forests ;

fleas are biting me, and every now and then a flop against the lamp announces the visit of a beetle. What can mortal man enjoy more ?

Dec. 9, 1856.

I have a very pleasant recollection of this day two months ago ; it was a clear fresh morning at Harmston when — and I set off to search for mushrooms in the dewy fields on the hill-side ; I remember we got thoroughly wet through with the dew, and came home again with baskets full of agarics. I have been thinking of it, and contrasting the pleasant present with the pleasant past : all that I wish is, that you could all be with us here just for one hour to inhale the pure cool fragrance of this early morning. It is now half past six ; I have been up since daybreak setting out some insects, and writing, and lounging in the garden.

Our plans are not at all decided : it is so pleasant to propose them, that we often build castles in the air, and carve out magnificent schemes, which are with our limited time practically hopeless.

To-morrow we leave for Constancia, a sort of farm and boarding-house at the end of the bay, on the other side of the Organ Mountains, and on high ground ; we go by steamer to Piedade, at the head of the bay, twenty or twenty-five miles distant, and thence go on by mules, or as we can. We propose to spend a fortnight there, and then perhaps to return here, *en route* for somewhere else.

I hear there is a case or two of yellow fever in the city ; it always appears about this time of the year. I mention it to you as it *may* be noticed in the English papers : there

is no (not the slightest) occasion for uneasiness; it is not yellow fever, it is fleas and musquitos that are my trial. My bag in which I sleep is a great success; I do not know what I should have done without it: I have never got into a bed since I have been here, but simply got into my bag and lain down on the outside, and slept the sleep of the just till daybreak.

* * * * *

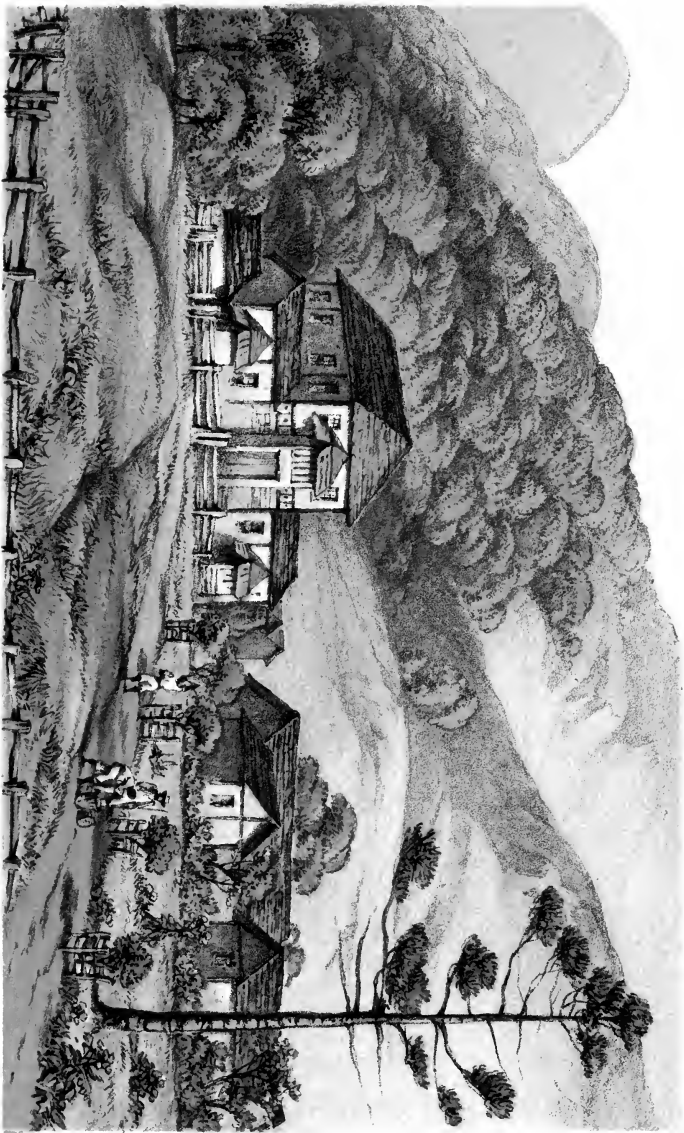
Always your affectionate Son,

HAMLET CLARK.

Constancia, Organ Mountains,
Province of Rio Janeiro,
Dec. 18, 1856.

MY DEAR FATHER,—

I posted two letters (tied together) to you at Rio Janeiro, just before we started for this place. Notwithstanding our inability to speak Portuguese, we got on fairly; in fact had much less difficulty than I had expected. We travelled by steamer to Piedade, at the head of the beautiful bay, and there we got two carriages with four mules each (one for ourselves, one for our traps), and set off for Barrera early in the afternoon. The country adjoining the head of the bay is tame, flat, and uninteresting, except to a naturalist; a rich heavy soil produces any amount of vegetation, and I suspect that its low situation, a plain on the level of the sea-coast, might produce any amount of malaria; but one would be inclined to gird one's self with an extra raiment of prudence, and face the chance of the latter, if only the insect world were (as, no doubt, it really is) on a par in luxuriance with the vegetation. I looked round at Piedade for some roosting-place that might be made available to much-enduring naturalists; but I could find nothing that did not seem much worse and more fatal to comfort than a tent, and no appliances for eating and drinking; so good-by to Piedade, it would not suit us at present in our innocence of language and customs. About midway between Piedade and Barrera we came to trouble; our axletree broke in two: happily no one was hurt, and happily, also, our luggage-carriage was behind us; so we



J. Gray del.

CONSTANȚIA: OCEAN MOUNTAINS

Day & Son, Limited Lith.

turned out, and while the men were changing the luggage from one carriage to another, we had half an hour or so in wandering about among orchids, ferns, and flowers ; so we lost nothing but time. The forest trees without being giants were well grown, and they had many species of parasitic orchids on their trunks. I noticed that although parasitic plants were in abundance, they seemed to affect special trees : most of the trees had their trunks clean and bare ; but if any had a growth of parasites, that tree was probably covered with them from root to topmost branches, and with several quite different species. I accounted for this, in my own mind, not by any greater age of the tree, but by some probable greater rugosity of the bark, which would give better holding-powers to the little parasitical roots ; at all events the effect was curious : here was a tree three or four times its proper diameter, bulging out like one of our ivy-clad ash trees at home, but not with one special overgrowth, but brilliant with scarlets and many-hued greens, while all around it were other trunks of trees clean and bare : why had not they, too, their extra coat of many colours ? Well, our pleasant delay of course took up time, and it was dusk before we reached Barrera. We had intended to go on at once, and we found our mules all saddled and waiting for us ; but, though we had no one to advise us, we felt that to proceed further that night was impossible : our difficulty was not ourselves but our baggage ; in the dark we could take care of ourselves by keeping near the guide, but if any of our traps got loose, no one would miss them till we got to our journey's end, and they with their indispensable contents would be lost ; so we determined to remain here all night

if it were possible. No one about the place could speak a word of French or English, but I made them comprehend : first of all I beckoned the mule-driver and led off with him the mules to the rancho ; this was intelligible as staying here all night : then I found my way into the den that did duty as a kitchen, and got some eggs for supper, and, what is more, got the familiar of the den, an ancient negro woman, to set about cooking them at once ; then, prowling about the house, I found one room which was manifestly the guest-chamber—a place, that is, that contained three or four shakedown on the floors : we took possession of this by making another black, the head or the tail of the establishment, bundle out of the room all but two beds, so that if any natives should arrive during the night they might have the privilege of sleeping elsewhere. We thought at the time that this was rather neat ; but, alas ! while catastrophes often are the precursors of pleasant surprises, sagacious contrivances sometimes bring sorrow ! We got nothing whatever by our arrangement but worries. I never spent such a night before, and I do not think it possible ever to spend such a night again : I did not sleep a wink. Our lean-to had a door and a window ; the door was a door that would not be shut, and the window was a mere chasm in the wall without sash or shutter ; early in the evening a flock of goats began to serenade us from the outside, and for some special reason (it is not a hircine habit) kept up their music all night : but inside it was positively dreadful, all manner of unclean beasts came and feasted on us, and then ran away to tell their neighbours of the windfall of healthy skins ; so relays assailed us all through that livelong night of horrors : our

bags seemed useless; we had not dared to open out the bundles they called beds, but lined them with cloaks of our own, and then lay down in our bags on the top; but what was the use? Scouts spied out the feast in store, and every parasite in that metropolis of hungry vermin was told the good news at once! We lighted candles from our travelling-bags, but to no purpose, except to offend the eyes. "No," we said; "let us try and endure, but, if you please, in the dark!" I wandered out; the door that opened into the fresh air, the outer door, was locked, so to dress and sit outside was impossible; but as soon as the long-wished for daybreak dawned, I got up, roused the man up, dressed, packed up everything, carried bag out of doors, unpacked everything, and shook out and hung on bushes everything, while I went further to find a bathing-place. Oh, the luxury of that fresh cool bath! My tortured skin was in an absolute fever, after the restlessness and the warfares of a sleepless night: I found a place where the little river tumbled over a small ledge of rock; here I stripped and sat down in the middle of the stream, and let the pure cold water dash over me, and meditated, and counted (I will not tell you how many meals I had afforded, but well into the three figures): it was delicious—the bath, not the other thing. Well, I counted, got splashed again and pummelled by the grateful water, dressed and packed up; and then the glorious sun came out! and the whole valley in one instant seemed to wake up to reply to his greeting—everything laughed with brightness; trees got up a little crisp fresh rustling in their foliage, flowers brought out their brightest colours, bushes and vegetation all at once dressed themselves in

gorgeous suites of countless diamonds; even the spiders' webs, with their geometric tracery, are decked with diamond drops; one or two sensible, sober-minded little mites of ants came out from under a twig, where they had been belated last night, just like ourselves, and, sunning themselves in a cozy nook, stretched their limbs and combed out their antennæ: and in the midst of this fairy land wandered a happy mortal with a glass tube in his fingers, picking up from bush and flower pretty little beetles, pleasant souvenirs in after days of a wretched resting-place, reconciled again to existence, and thinking how strange it is that man at his lowest estate can mar the most lovely scenes of nature, and that man at his highest estate can make the wilderness blossom as the rose. I wish you would tell me of the place where there is perfect nature and perfect man; that is the place for me!

Revenons! I found friend Gray the picture of a good man struggling manfully with adversity: I told him of my wanderings, and exhibited my spoils; this did him good. Then coffee and eggs again for breakfast, and to the rancho to wake up the mule attendants: mules already are being saddled, two for our traps, one for our guide, two for ourselves: but these negro slaves are not bright; if a thing however trifling wants doing, they gather round it and stare and gesticulate and talk: it took five men upwards of ten minutes to decide which way my portmanteau should be strapped on the mule; there it lay in the middle on the ground, and they all five proceeded to vociferate and gesticulate and almost dance around it. At seven we started, and got here soon after noon; our

road was a mere mule-track, often, I imagine, quite impassable for wheeled carriages; we met hundreds of mules in groups of from ten to forty during the whole of the way, carrying produce of the country, coffee, sugar, &c., to the coast.

We have got two bachelor rooms, tolerably comfortable. Heath our landlord is a sort of gentleman, owns an estate three leagues and more long, and has built this house as a mountain home for English in Rio; and round it has built a set of little isolated cabins for ladies and families to occupy during their residence here of generally one or two months. He makes himself the head of the family, and makes his family to include whites and blacks, visitors and dependants, and is a jolly, good-natured, happy-looking Englishman. He came out as a clerk to Rio, and has done pretty well for himself. He showed us yesterday his garden; here he grows everything wanted for the house and kitchen: then we inspected his quarters for his slaves. He has a list of slaves hanging up, giving names, dates of birth, ages, and parentage; then, next to this, a list of his saddle-mules, so many, with ages and dates; then comes a list of cargo-mules ditto: thirty-four slaves, nineteen saddle-mules, thirteen cargo-mules; all grouped together on paper, and manifestly all grouped together in the master's mind as so much property. As to his slaves, you may read *them* at a glance, very fat, sleek, stupid, and happy: the mules were not so easily reckoned up; I could not tell a kicker or a biter or a roller from a pattern of all mule virtues, though Heath tried hard to teach us.

Since we have been here we have had rain, rain, rain!

I go out every day, and prophecy that between the damp and the heat I shall soon wear out all my clothes ! Every day I am wet through once or twice : we are in the very midst of real virgin forest, more than 3000 feet above the sea-level, with hills all around us of perhaps another three thousand. Wild animals are rare about here ; tapirs are to be found in some of the hills, and we are exhorted to have a day after them. Birds are rare, at least large birds ; I can see none that I know of by pictures or in collections : humming-birds are more abundant, of all hues, and brilliant like precious gems : spiders and beetles too want looking for, but their absence is accounted for by the excessive rain.

We had at least an interesting introduction to the Organ Mountains ; we were slowly riding along in single file, our guide leading, when as we passed a broken horizontal limb of a tree close to the side of the path, all at once he woke up into active life ; he was off his mule in a trice, handed me (I was next in file) the rein and his whip, had cut down and whittled clean a cane-sapling, and then with all his force whack came the cane on the broken branch ! Now we knew what the man was after : at once there uncoiled itself and fell to the ground a splendid serpent (the man said 9 feet long ; we thought not quite so much), the deadliest serpent known here. He was sleeping twisted round the branch in the sunshine, black and bright yellow, very hideous in its beauty ; a villainous flat broad head, made uglier by a thin neck, snapped at us in every direction as we stood round it, and a single snap that hit its mark would have been certain and speedy death to man or beast. The creature was soon killed ; the guide smashed its head with a stone, and then for the

first time in my life I saw, as I pushed back the lips with a twig, the horrible poison-fangs, as sharp as needles. We left it in the path as a caution to others, and went on our way musing on our introduction to Organ-Mountain life and manners.

Heath has several visitors besides ourselves; the house and cottages are all full. Our English Minister at Rio with his family and suite are here, with a proportionate number of servants; a young gentleman from the States, come here to cure a consumption, and divers English and half-English half-Portuguese families from Rio: at present I have seen but little of any of them; we shall make one another out presently.

Dec. 23. This morning Gray is gone back to Rio, and only for more clothes! Ours have not followed us as we directed; this will show you the great difficulty of obtaining anything: it is awkward to have to make a long two days' journey for such trifles, but it can't be helped. I am here alone, and am getting a little more used to the people and the scenery; as for the visitors, I see nothing of them at all, they never appear till breakfast-time (we all have our meals together): immediately after breakfast I disappear to dress for the forest; and, though they do not go to bed till nearly midnight, I see nothing of them at night, for I am generally in bed three hours before then. I get up at or before daybreak: at the end of the garden is the bath-house for the gentlemen, a shed built over a little talkative brook that is made to run through a large tank of masonry; I am the first of the household to pay a morning visit there and to make sport for the little crabs, who run up and down my body as I am in the

water and fancy they have found a new playground—a curious sensation that of being a promenade, till you are used to it: after my bath I have three hours till breakfast, which I spend in my own room: from 10 A.M. till 2.30 P.M. I am in the forest; at 3.30 there is dinner (a most inconvenient hour to us; but we are too modest to propose any change, or to say how precious the afternoon would be to us among the trees); about 8 P.M. there is tea going on, and soon after I am in bed: of course, after this, especially if I add that I drink no wine or spirits, I need not say that I am in perfect enjoyment of health, and in perfect enjoyment of much happiness.

Dec. 24. Yesterday I had a complete introduction to forest-scenery. Early in the morning I set off with the Honourable —, one of the attachés at the embassy, to visit, if we could, certain falls, celebrated for their beauty, and celebrated also for their unapproachableness: we got as complete instructions as we could, and set out. For the first three miles all was plain sailing enough; our pilgrimage was along a mule-track deep in mud; there was nothing for it but to splash and wade: this is the great thoroughfare leading from Rio to the rich province of Minas! at best it is an unmade mule-track, at worst (which is always in the rainy season) it is a treacherous quagmire! I envied the black mule-drivers that we met; they could do without shoes and stockings and so were independent of mire; as for me, contemplate my costume! A white wide-awake, a woollen shirt, trousers, socks, and shoes—a walking-costume light enough on paper in England, but none too light in the actual warfare of forest, and clay, and sun. Our real difficulties began as

soon as we left this precious road : we turned into the forest opposite the reputed falls at the back of a hut, and for another mile had an apology for a foot-track ; but at last we lost it ; it became gradually less and less, till at last I declare it went up a big tree, and we were left alone and to our own resources. But I had never conceived that any process of walking could have involved such physical labour ; every limb and every muscle of the body were brought into active exercise : we were in the deepest shade ; some 50 or 80 feet above our heads were the bushy tops of closely packed trees ; then below them a second covering of palms, fern trees, and such like, all loaded with parasites : below them, again, was thick-tangled brushwood, not in the least like our English brushwood that good naturedly gives way to your arms and hands as you stride through it, but interlaced in all directions with long trailing creeping plants, some with stems as thick as my wrist, others thinner ; the thinnest, and by far the worst for us, were thread-like runners that were no thicker than string, so tough that to break them was impossible, and so long that they would not give way before us. Underneath this monster vegetable net (through which we had to struggle for hours) was the ground, covered with masses of dead leaves, broken branches, all the *débris* of the vast vegetable creation above that had been accumulating for countless ages, and often green with little plants and ferns. Well, this was the ground over which we had to make our way, across all sorts of country, up precipices, down hollows, over or under fallen trees, through brooks or quagmires ; now on all fours creeping below the trunk of a fallen tree ; now perched up in the branches of another

prostrate giant: we both were soon exhausted with such a continued strain on our muscles; but we determined to persevere, and at last we got to the Falls! We could not lose our way, for we had none to lose; and we could tell pretty well, by the direction of the streams which we had to wade across, where we were. I cannot describe to you the loneliness and the strange magnificence of the scene. We climbed up by the side of the Falls till we got to a large flat ledge of bare rock nearly at the top, in what is evidently sometimes the bed of the river; there we sat and rested and ate luncheon and were refreshed. Above and below and on one side of us was the rushing river wandering along through trackless forests; trees of many-hued foliages and blossoms were crowded up to the very margin—some stooped down bending their tops laden with creeping climbers over the water; sometimes the the climbing plants had thrown themselves right across the river in elegant festoons, and, wreathed with orchids, joined themselves to the tops of the trees on the opposite side of the river; this, I imagine, was accomplished in the first instance by trees themselves falling across, and thus giving a foothold to these restless climbers, which they would be sure to improve till they had reared themselves aloft. Below and all around the foot of the Falls were delicate little mosses and plants and ferns (giants and minute) in luxuriance: one in particular I noticed as conspicuous where all was beautiful; it was a parasite, and, as I think, a fern. You might have some idea of it if you were to tie sprigs of parsley close together on strings 2 or 3 feet long, and then supposed four or six of these clothed strings placed side by side and constituting one of many

similar pendant fronds; it was a lovely mantle to the trunks of trees: others—but I have not the power or the time to describe. We rested for an hour on the rock; we did not talk, hardly spoke a word to each other, but drank in in silence the scene in all its wonderful details—a scene the like of which neither of us probably will ever see again in this life. My thoughts were those not only of delight and admiration, but also of inquiry and wonder: here, in this spot, to speak only of it, has all this exuberance of creative power and matchless beauty been manifesting itself, not for a generation or two, but for thousands, or it may be millions, of years, and manifesting itself not for the teaching of blind error-loving mortals (*that* would be intelligible enough), but in solemn everlasting silence and loneliness. There's a subject for a sermon for us clergy! the love of the Creator for all His works; the satisfaction of Him (if I may dare to say so) in their beauty as the incarnation of His ideas of beauty, to-day just as much as at their first creation. "Behold it was very good;" that makes it all clear and intelligible! and I say to myself, as I desire to know more of laws and His scheme of progressive creation, the student of nature is a happy man; "it is enough for the disciple that he be as his Master."

We remained on the ledge for an hour, and then set off on our return. Of all the climbing that we had to encounter that day, I suppose a new "clearing" (in anticipation) is the hardest: suppose our hill-side at Harmston were twice as steep as it is, with ridges of rock, gullies, and entirely broken ground; let this hill-side be covered with a dense forest, trees hundreds of years old, so closely

packed that the branches intertwined and interlaced each other in all directions; then let all (every tree) be cut down and left to rot where it falls, and imagine yourself having to get through, under, or over all this, from one end of the field to the other. If you can fancy doing this in our hot-house temperature three or four times over, remembering that one-third of the trees have awful spines sticking out of the bark, you will get an idea of what it is to have to cross a newly felled embryo "plantation," as we had to do three times; but we did it, and got back to the mule-track again safe and whole,—whole, that is, as to our courage and bodies; the reverse of whole as to our raiment. What plights we were! Mr. — had on once a white jacket and trousers; now they were as black as a coal-heaver's and ornamented with divers rents: as for me, my casualties were endless; I was not fit to be seen—my hands all blood, face of all colours, legs up to the knees mere mud, and in such a state that I would have given anything, even the rarest specimen in my insect-boxes, for *a needle and thread*! As we were trudging along, who should meet us, to our horror, but the whole party of ladies from Heath's, come out, as far as the mud would let them, to see whether they could learn tidings of us! We could not run away: the interview was very brief; but they found they had something to laugh at for a long time after. The practical result to me is, that I send a letter to Gray at Rio, exhorting him to bring up more clothes as soon as possible.

The next morning I am all right, but a trifle stiff, and having nothing to do before breakfast: an expedition is

being got up to beat up the haunts of monkeys a few miles off in another part of the forest; I do not know whether I shall go or not.

I am writing at night at a table against the window. My room is on the second floor; outside the panes I can see by the candlelight two pretty green frogs running about; their feet are constructed like air-pumps to exhaust the air, so that they can run up or down or sideways with the greatest ease. Every now and then comes a flop against the glass, a beetle or moth is attracted by the light. My two green friends are wide awake; they scurry over the glass and occasionally secure a good mouthful: in the intervals they walk leisurely about, amusing themselves with the small deer of gnats, musquitos, and flies, which, like the others, are attracted by the light: that is a curious sight, one of fifty that I see every day, that you don't often see in England.

Dec. 26. I did not go after the monkeys. I am come here to explore the Coleoptera, not the Mammalia; and time is precious, though I feel vigorous enough for anything. No monkeys were seen, and more clothes were spoiled, and more diachylon for scratches called for.

Christmas day was celebrated by me by a morning's ramble in forests near home, the slaughter of three snakes (one a big beast) and thoughts of you all in England. At three we had a capital Christmas dinner: even in the tropics hot roast beef and hot plum-pudding and champagne are welcome on one day in the year to every Englishman—so our host Heath asserted, and so we found; but it was very hot work. After dinner the slaves (who in name are baptized Christians, but in knowledge any-

thing or nothing, certainly not Christians) came before us as we were all sitting out in the verandah, and had a dance: they soon gave us quite enough; the whole affair was vulgar, and coarse, and silly.

Dec. 29. Rain; nothing but rain! Since we have been here we have not had a single fine day; gleams of sunshine make their appearance every now and then, but only sparingly, and this keeps us perforce to the neighbourhood of the house. There is much to see here; but it is really impossible to get along the roads, or, indeed, to get anywhere on foot. We are proposing to return to Rio in time for the arrival of the English steamer, so as to get our letters, &c., and then when we have answered them to start off to some other locality.

I have just had experience of one of the peculiarities (the drawbacks) of residence here. An Englishman, one Mr. Fisher, who has been living here for many years and is the owner of a coffee-estate, is dying. He is a Protestant, and I have been very glad to go and see him as a clergyman of his own Church. The Brazilian laws will not permit a heretic, *i. e.* one who thinks for himself, to be buried in their consecrated grounds! What a puny feeble attempt to offer insult to the most advanced and intellectual part of humanity by treating with indignity a dead body! nay, they will not allow a Protestant to be buried anywhere without leave, except in the Protestant burial-ground at Rio. For myself and, I should think, for most people, it is a matter of perfect indifference how one's body after death is treated: but then we are not under the wholesome discipline of "the Church;" and to us purgatory is a myth, and priests' curses a profane joke.

Heath, a friend of his, has asked leave (at the poor man's request) for his body to be buried in the forest on Heath's estate, and has asked us to remain a day or two longer that I may perform the Burial Service. We have promised to do so; the poor fellow can't last many hours.

We have had no service here on Sunday owing to a misapprehension; it was half arranged, but some blunder prevented it. I don't fancy there is much religious feeling here. The Brazilians all spend Sunday as a day of special amusement: the English are very quiet and reserved; and as for the blacks, no one seems to know or to care what their religion is, or whether they have any at all. Their ordinary evening salutation of respect is curious; as soon as they have finished their day's work, each of them comes and roves about the premises till he has found "Signor Ricardo," their master Heath; and wherever he is, or whatever he is doing, they stand in front of him and take off their caps, and say, "Blessed be the name of our Lord Jesus!" To which Signor Ricardo replies, never looking up for a moment or in the least disturbed in his occupation, whatever it may be, "Sempre" (for ever): this is their "good night." As for Sundays with them, it is a holiday as far as plantation work goes: in the morning they are idle, basking in the sun or lounging about, or perhaps working in their own gardens; in the afternoon they dress themselves in their fine clothes, and in the evening they have a dance. But you should see the fine clothes of the women blacks! white muslins, with scarlet or yellow sashes, or all scarlet, the louder the contrast, the more becoming the effect; on

their thick black fingers they have gilt and silver rings, and always in their short thick woolly crop of hair is stuck up behind a vast comb as big as a small plate ! So much for fashion !

New Year's Day, 1857.

A happy new year to you and all of you ! This was my first thought this morning, wondering what you all were doing at Harmston ; and you have been much in my memory all day. At half-past seven this morning I read the English Burial Service over poor Fisher, who lies, as he requested, on this estate ; all his own blacks, as well as Heath's, attended the funeral, and most of the Brazilians in the neighbourhood. The blacks I am sure could not comprehend a word that was said, but were most attentive and serious ; at last came something they *could* understand, as they thought : at the proper time in the service Heath scattered a little mould on the coffin ; here was something, at all events, in which they could join, each of them must get up a handful of clay and throw it into the grave : of course I could not go on till all had satisfied their imitative propensities : no one seems to have expected it ; they are as impulsive as children, and *are* children, that accounts for it quite.

We return shortly to Mrs. Johnson's at Botofogo, wait there the arrival of the mail packet, and then leave again for some other part of the mountains. The weather here is horrible ; roads are absolutely villanous, mules hardly can get along ; so you see that in this state of things travelling to any distance is quite out of the question. The weather here is like a rainy, *very* rainy English summer, almost chilly sometimes at nights, and hot downpours

during the day. There are two objections that I have to the country, the snakes and the ants: as to the snakes they are abundant as to examples and of many different species, and of some the bite is dangerous or deadly; I always kill them when I see them—perhaps a cruel and useless mode of getting out of their way; but I hate them for their scowling low-browed head, the type of everything that is mean and treacherous. I generally kill two or three a day, for they lie in just the very places that insects delight in, the outsides of forests, clearings, plantations, mule-tracks, wherever they can get a little warm sun. I always have half an eye on the look-out for them, for the common bad one in this neighbourhood, a short heavy black beast, will hardly move till he is actually trodden on, and then he turns and fights, and perhaps half kills.

The ants abound! Brazil is one great ants' nest! they are of all sizes and dispositions: some are a plague to us in the house, for they will come at nights and prey on the insects in our store-boxes; some are a plague to us in the forests, they get inside one's clothes and bite and sting; others are a more serious evil still, vegetable-feeders, which will take a fancy to the leaves of some tree, and strip every leaf off in one night! I could not imagine why Heath had a broad deep ugly ditch running all round his vegetable-garden, when a neat rail would keep out mules quite as well, until he explained to me that it was in the somewhat vain hope of keeping the ants out of the garden; he confessed that it had hardly any effect at all. There is one species celebrated for its mining-propensities; not only does it live underground, but it delights in making tunnels leading in every direction to nowhere at all, two

or three feet below the surface : a few years ago they took possession of a cleared hill near the house, and prospered so that last year Heath and his slaves made vast efforts to reduce the nuisance ; they got gunpowder and brimstone and other slow-burning nastinesses, and tried to smoke them out : the means were effective enough* in one sense, for all up and down the hill-side, fifty or a hundred yards from the great orifices, little threads of white smoke kept rising up, showing that the whole slope was tunnelled : this year the ants are worse than ever. The only effective remedy, as it seemed to me, would be to let in small streams of water from the top towards the base, instead of currents of smells from the base towards the top ; but of course springs of water are rarely found near the tops of hills, and so they escape death by drowning.

There are some long-jawed fellows that attack you by a jump, not by spring of their legs, but of their backbone (only they have none) ; they can fling themselves about a foot, and live under fallen timber and such places : they are not so cruel as the little ones. The *small* species are my terror ; their stings are like red-hot needles, and they do it with such a savage will ! First they get firm hold with their jaws, then they get other purchases with their feet, and then like lightning they arch back their bodies and drive, with all the powers of body and legs, their stings in up to the very hilt ! and so cunning and hostile are they, that they do not, like some others, keep hold with their mouths, thus making only one red mark on the skin, till they are picked off ; much less do they run off having done their duty, but they go, say just two inches

forward, and then go through the stabbing-process again. On one occasion I was in very great trouble, inadvertently I stood still for a moment examining the contents of my net just in the midst of their run—a forage-expedition of the whole tribe. I did not see them, nor indeed did I look, so intent was I on my precious beetles; when all at once I felt their stings over a great part my body; the whole legion had walked up my boots! the pain was really dreadful! But happily when I had changed my quarters, and thrown off in desperation half my clothes, a slave youth came by, who helped me to pick the wretches off my body and clothes, and to get in order again: since that adventure I have always been careful not to interrupt the social migrations of ants.

Johnson's Hotel, Botofogo, Jan. 6, 1857.

We arrived here in safety after a pleasant journey: the weather is fine, and the temperature materially hotter than in the mountains. I have nothing really to tell you except this; but I like to write a line or two every few days. We propose to give up our journey to the Minas district, the arrangements will require much time; our stay in the country must necessarily be short, and the shocking weather makes travelling specially difficult.

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People all around us, both English and Brazilians, are very courteous and polite; they beg that we will "command their service," that their "houses are at our disposal;" in words, at all events, they are capital, and happily we do not require anything but words. The expenses here are very great; the salary of the English chaplain is

reported to me as £800 per annum, and as being equal to about £300 in England : a curate at home with £150, his lodgings, and a chop would be far the richer man of the two.

The thermometer to-day is in the very coolest shade 86° to 88°, in the sun 110° to 114° ; rather warm work walking, with all contrivances of protection !

Last night I dined with our Minister at Rio, and spent a pleasant and warm evening. Why in such a climate is a black dress suit a *sine quâ non* for a formal dinner-party ? If I were a big man, a very big man, here, I would soon effect an alteration, and make my house the most popular evening resort in Rio. My rule should be, that no colour but white should be received, for gentlemen as for ladies : fancy how exquisitely cool and comfortable ! No one in lounging chairs in the verandahs of the drawing-room would ever have to employ their whole time in keeping streams of perspiration from their necks, if dressed in white instead of in black ; and there would be a refreshing sense of enjoyment, and not of imbecile self-sacrifice to the great god Custom. I went to call on the clergyman here one Sunday evening ; I found him appropriately dressed in a very thin flannel white suit. I could not help saying how much more sensible such a colour was, and we mourned together over the duty of clerical perspiration.

When I was in Rio the other day (I go there as seldom as possible) one of the merchants took me to a Brazilian auction, corresponding to the sales of an English broker ; the firm, whose monthly or quarterly sale this was, sold off calicos &c. to the value of about £20,000. The auctioneer makes more in a day than a curate does in a year, and

only by his power of telling lies. This man had a repute as being a choice adept in his art: he has say twenty lots to sell of the same material; he begins with the first as "a single lot, of which there is no counterpart," the second is "positively the only other," the third is, "on his word of honour, the last," and so on. I have not the power to follow him as he rings his changes on the several lots, pledging everything that he holds most sacred, calling spirits from above and below to attest his truthfulness, inventing on the spur of the moment wild extravagances of emphasis; while in front of him are a mob of buyers, as full of practical jokes as children, and making a scene of confusion and dismay to the uninitiated which far surpasses even Liverpool Exchange after a fall of snow! Bales of cloth drove hats well over the eyes, hats took leaps across the room, sample bales occasionally followed them; it was a mad and noisy scene, very Brazilian, but perhaps worth seeing just for once.

* * * * *

Your very affectionate Son,

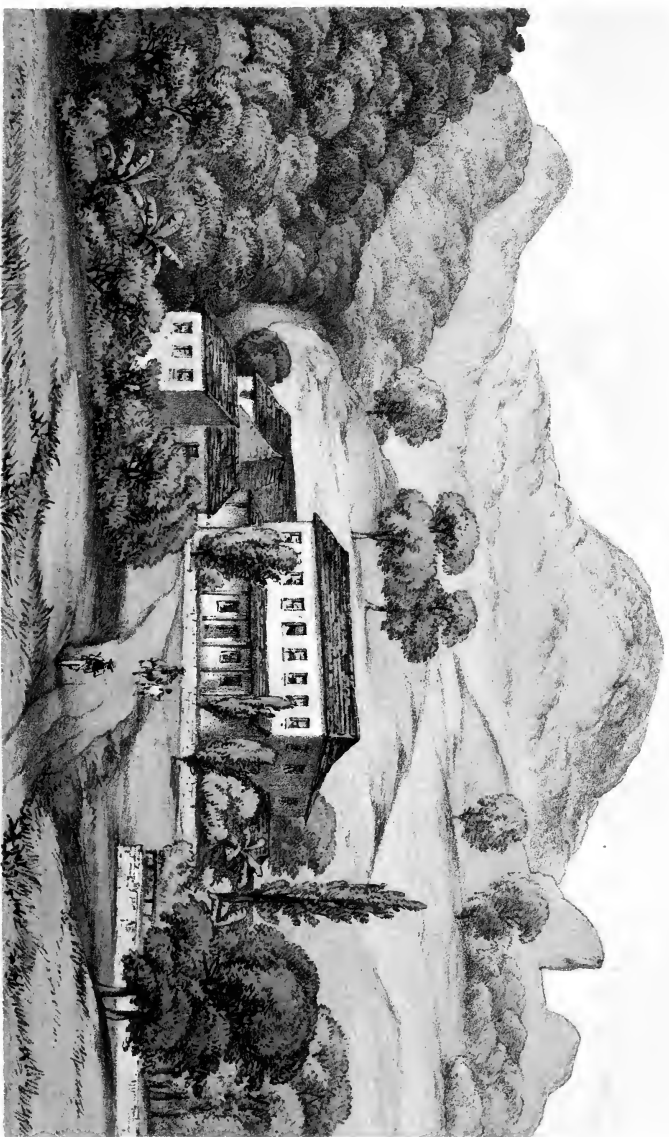
HAMLET CLARK.

Tijuca, Jan. 12, 1857.

MY DEAR FATHER,—

We are here staying with Mr. Bennett, who keeps an hotel and also a private boarding-house, in which latter we both are; the hotel is full of Brazilians. In the boarding-house with us are the captain of the Madagascar frigate and his wife, an English architect, a Brazilian counsellor (equal to a member of the House of Lords with us), and the Secretary of State for the Home Department, the second officer in the Empire (the first being the Prime Minister). Titles here do not seem to be much valued, not so much as they are in England; many of those who possess them have simply paid a certain price for them; it has been a question of gross money, not of worth, or intellect, or services. I was told that the vast lunatic asylum built on the shores of Botofogo Bay cost about £100,000, and that this large sum of money was all obtained by the open sale of decorations and titles!

This place, Tijuca, is very pretty; it lies about 1000 feet above the sea. We rode up in omnibusses about half the way and then on mules; carriages are never seen here. Since we have been here there have been torrents of incessant rain, so that we have been hardly able to stir abroad: the gardens belonging to the house are beautiful, full of choice shrubs and masses of flowers. This morning I got a bruise in the bath: the stream was very swollen, so that I could not bathe at the usual place; but



J. Gray, del.

Day & Son, Limited, Lith.

MR BENNETT'S TIJUCA NEAR RIO JANEIRO.

I saw another place where the water seemed more quiet (it was the ladies' bathing-place); I went and undressed there, for the rain made it necessary to get a shelter for one's clothes, and jumped in. The stream was very strong and tossed me from one side to the other, bruising my shoulder considerably: there I was holding on on one side, and all my clothes on the other; then a biggish crab, no doubt banged about as much as myself, laid fierce hold of my leg. I in my innocence put down my hand to pull the gentleman off, when with its other claw it laid hold of my hand! rejoicing, no doubt, that it had got such a firm double anchorage; but the anchorage of the crab sent me adrift. By some means or other I floundered to the opposite margin, and worked my way up again to my clothes: two men were standing by them, each come for a bathe; but after they had witnessed my exploits, they retired without undressing—they had seen enough.

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Constancia, Organ Mountains,
Christmas Day, 1856.

MY DEAR POWER,—

I give the evening to you and friends in London. It is a strange Christmas Day; instead of our English frost or raw fogs, the heat is so great that in the forest coat and waistcoat are simply encumbrances. The scenery is magnificent; I cannot tell you the beauties that surround us. We have been here several days, and are beginning to get a little more familiar with our work. What shall I begin with? *Beetles*: they are scarce, that is they require looking for; the uninterrupted downpours of rain drive everything to shelter: we find ourselves among small insects principally. During the short time that we have had of real hard entomological work we have taken about five hundred species of Coleoptera (besides many of other orders); this is under rather than over the mark. Water-beetles are at present most scarce, or indeed impossible; we are in the midst of the rainy season, and violent rains, sometimes all day or all night long, have so deluged everything that lies low, that I cannot get at the pools and brooks for the water! I have spent a good deal of time with my water-net, and I have not certainly a dozen species, *Dytiscidæ* and *Hydrophilidæ* put together.

That which is most remarkable in the general character of the Coleoptera is the wonderful exuberance of species and the real scarcity of individuals; most of our species are represented only by a single specimen. We go out

three or four days consecutively along the same walk, visit the same shrubs and trees, and yet each day's captures are different from the preceding. We both work along the same track, pretty nearly at the same time, and yet each will bring home many species that the other has not seen; and with this abundant variety of species there is an absolute dearth of individuals. I have taken at Deal, or the Chesil Bank, or in many English localities, six or ten times as many insects as I have ever captured here in any given number of hours. At present insects don't come to us by any means; we have to go to them at their own homes. *Geodephaga* are at this altitude, 3000 feet, very scarce indeed, except the leaf-loving arboreal *Geodephaga*, the lovely genera *Lebia*, *Agra*, and their allies. *Buprestidæ* are rare too; *Elateridæ*, *Curculionidæ*, and *Galerucidæ* are the dominant groups for the moment: perhaps in *Longicornes* we take eight species every day, and of course single examples: of *Elateridæ* and *Curculionidæ* I have often taken enough in an hour to occupy the whole of the next morning, if I were to set them out after the fashion of precise order-loving symmetrical entomologists in England. Let me here unburden my mind by a frank confession: I do not set out my insects at all; I want all my time in which to search for the little beauties themselves: the possession of their forms is to me of greater moment far than the neat symmetrical disposition of each limb on cardboard; and so, just as my object in the woods is to bottle as many as possible, my object at my work-table is to pin and gum down as many as possible, everything that I have.

The Ants here are interesting beyond anything that I

could have imagined. I am getting a few together for Mr. Frederic Smith ; they have all sorts of devices for getting through life pleasantly to themselves, and for making themselves disagreeable to their enemies. How they *hate* me ! Whenever they have a chance they bite, or else they sting. There are two wee atoms of species, in colour pale flavous, not thicker than a pin, whose mission in life it is to persecute me ; they are devoted to their self-imposed task : on face, or hands, or neck, they fasten like a vice, and don't draw blood, but suggest pins and needles. Every bush almost has scores on its leaves ; so every examination of the contents of my net or inverted umbrella reveals scores of small angry, bustling, retaliating creatures, who often compel me to lay my net down for a moment on the path till they all have cleared themselves off : there must be an immense number of species. I have found two nests of what I suppose may be a species of *Eciton* ; but though I have poked them well up and got well bitten or stung for my pains, I cannot get any of their winged maternities to show themselves ; they are not nests, but runs and small accumulations of rubbish under old trees. *Wasps* and *Bees* are at present rare ; I see very few, not one-sixth of what I met with in Spain. Twice I have been well stung, the natural consequence of beating and smashing up pendant nests into cloth or umbrella. I have no doubt but if Mr. Smith had been in my place he would have rejoiced in his opportunity, and sat down happy in being the focus of attraction, and tranquilly picking the specimens out of his neck and whiskers transferred them to his bottles ! Such things are too great for me ; I am a very ordinary mortal, and so

I put down my net and ran away. I shall have a good set of Ants, but very few Bees for him or for the British Museum.

There is one grand Brazilian species of Beetle, of which only three examples, I believe, are known—*Hypocephalus armatus*, or Anglicè “the Mole Cricket Beetle,” from its quaint resemblance to a Mole Cricket. Well I had some drawings of this creature made from the figure Mr. Smith gave me, and distributed them among some lively looking slaves here, with the promise of three milreis (about six or seven shillings) for every specimen they would bring me; but these negroes have such exuberant imaginations! Yes, they all had seen it, had seen it often, knew it *well*: one had found it under rotten wood, another had seen it frequently in his plantation, a third had seen it in the path only the other day; but all this is only talk (three milreis would be a fortune to any of them), and no *Hypocephalus* has ever made its appearance.

The *Forficulæ* (Earwigs) are interesting: I find some very pretty species here, chiefly under bark; one a grand fellow very large, others minute and very flat. Of course the *Lepidoptera* are something *per se*; I never saw such rare colours or beautiful forms. I take great credit to myself that I am not as yet ensnared by them and that I have not taken a single specimen, although often I have been sorely tempted to do so, when I have watched them in brilliant groups of twenty or thirty together sucking at dirty puddles in the forest-paths. I can easily believe many of the smaller species at least to be well worth taking, for their delicate beauty is beyond compare, and such an animal as a “bug-hunter,” as we are called, has

never in the memory of any one here been seen or heard of in any part of these Organ Mountains. We are *rare aves* as to our vocation as entomologists, and I fear also as to costume, on my part at least. I astonish the eyes of our British minister at Rio (who is staying here) by hunting about for invisible objects, such a figure as he, poor man, certainly never has seen before; for my clothes are all worn out, and it is too hot to wear clothes: put these two facts together and you may get some idea of my turnout into the forest every morning. Gray is always respectable, and as every man "*noscitur a sociis*," I shelter myself behind his respectability and am tranquil.

I have had one or two expeditions lately into the virgin forests; they are *not* the places, as a rule, for entomologists: insects congregate rather on the outsides, in clearings, or by the sides of paths, or anywhere where they can get air and sunshine; but the forests are worth seeing over and over again, if not for their insects, at all events for themselves. They impress one with the sense of vastness and silence and solemnity, and teach me (as I can conceive nothing else could teach, except perhaps a bed of sea-weed on a tropical shore) the marvellous exuberance of Nature's powers: ferns and mosses intertwined with parasitical orchids—giant trees, climbing plants, each or many with their special flowers, darken the air that they perfume: the air is full of life; you can hear, but you can see nothing. I suspect there is a great world of insects high up above in the thick bushy tops of the trees that can bask in the sunlight. You hear the deep distant hum as of thousands of insects, occasionally the note of a bird, sometimes perhaps the fall of a branch, or,

it may be, a strange sound that is inexplicable; but nothing can you see but the vegetable world, and this arrests the whole of you! sight and smell, as well as hearing, make you pause with charmed surprise at every step; always there is something to wonder at or to examine: thus, if we use our own sense of observation at all, progress is often very slow, or perhaps *nil*. It is with the greatest difficulty I confine myself not only to the collection of Coleoptera, but even of insects; it requires some resolution to abstain from gathering botanical specimens.

I am not surprised now to know that Gardner, the great botanist, here travelled with twenty-four baggage-mules, all carrying his precious collections of botany; and even he, with his wealth of carrying power, must often have felt himself sadly restricted. If you want to collect all, you will just have to walk off with half the forest.

We are enjoying ourselves entirely: every day is one of fresh excitements and new acquisitions of knowledge; there is no sort of drawback that is worth mentioning. I should often certainly like to see an English newspaper or magazine in the evening, or to have the power of running over to Burton Crescent; but then, on the other hand, I am never dull, nor the victim of ennui; I don't know what it means. My evenings are short, for I get to bed as soon as I can; and my days are very cheerful, for they are brimful of new discoveries and spent in the forests. The secret of a happy life is here (in Brazil), just the same as in England, health and occupation for both mind and body. As to health, there are two secrets worth knowing for English living near the tropics,—always wear flannel next the skin, and never or very rarely touch wine or

spirits. These with common prudence will make life as enjoyable here, or even more so, than in dear old England itself! We have two grievances, and only two,—first, the DAMP; this is a great trouble; it ruins everything, papers, clothes, insects, everything! Nothing will keep dry; clothes get mildewed, then they rot and are worthless; as for insects, many and many a specimen have I lost from the decay and the mould that are inseparable in weather like this. Secondly, the COCKROACHES; they are as big as mice, and clear off a large setting-board full of insects in a night, leaving nothing behind them but a desert-like array of empty pins, with here and there a bit of a ticket! The evening before that setting-board offered a sight that would rejoice the eyes of any Coleopterist; but it was alas! forgotten, and after a few hours of darkness presents nothing to delight us with but metal pins and a score or two of odd antennæ and wings!

With regard to fleas, &c., they are a matter of course: they cease to worry, except in a moderate degree, after a short time, and they (like mosquitos and snakes) can always be fought with and conquered. As for snakes, I have said nothing about them; but I can sum them up in a line—they are the only really bad things in all Brazil except yellow fever. Combine your ideas of an incarnation of treachery, of malice, of cunning, of cruelty, of ugliness, of everything that is mean and grovelling and wicked: you have the combination in perfection in one supreme effort of nature, a snake's head.

* * * * *

Always sincerely yours,

HAMLET CLARK.

Tijuca, Jan. 20, 1857.

MY DEAR FATHER,—

It is a week since I sent off my last letters to you, and, strange to say, I have not yet begun another; but indeed these days are so completely the counterpart of each other, and jump away into the past so quickly, that the contents of my journal from day to day would be rather monotonous. On Thursday, as a sort of change, I was slightly unwell, rather feverish with headache; I summoned Gray and our host Mr. Bennett to my aid, and we had a solemn consultation, with pulse-feeling, &c.: the prescription was a slight emetic, bed all morning, a pill, with rancid castor-oil about noon, and a light dinner or supper at night. Nothing could have been more successful; in the afternoon I was clear and fresh, with headache all gone, and an enormous appetite.

We have had four days of incessant rain, and now fine scorching heat; yesterday the thermometer in the shade in my bedroom was 89°, and yet I felt no ill effects from being out of doors and at pretty hard work all day long; a special reason certainly is that, regardless of appearances, I clothe myself when I go out as much as possible in white. Yesterday my dress was white shirt and light-coloured trousers, and I felt no evil in the sun-blaze; but these black clothes are terrible, they quadruple one's sense of the heat at once. I have been badly bitten since I have been here by a little pest of a fly which abounds near the house; it raises small swellings or blisters about the size of a small pea, which are most

irritating, and, if scratched, speedily turn into sores. The backs of my hands and knuckles are so swollen that I cannot close my left hand at all : every one suffers, but I far worse than any one else. At last I discovered the reason, it is only because I wear black clothes, and every-one else avoids black. An engineer said to me the other night, "I always like to sit next to you in the verandah." I began to feel flattered, and to give my neighbour much more credit for discernment than I had supposed ; clearly his was an appreciating mind, who could understand and value respectable society. "And I'll tell you why, sir, because then I am never bitten by these beggars of flies ; the heat of your clerical black clothes draws together all the *Borrachudos* in the place. Yes, sir, you are a public benefactor, they will never hurt any one in white as long as you are dressed in black." I am doomed to be a benefactor I fear (for my wardrobe will supply little but black), and to be bitten for my improvidence before I left England ! May all men sing my praises as they ought !

Our company here consists of two or three ministers of state, a young American from the American Embassy, and a very few English. We always meet at meals except when I have lost my way and my dinner, and I see every morning from my window the men and the women at intervals coming from or going to their respective baths ; but I know very little of them, though they seem to hold "Signor Padre," as they call me, in some respect and consideration. People here can't conceive *why* we have come out to Brazil ; they will not accept the real attractive power of their own country ; they cannot comprehend the beauty of an insect, nor even many of them

the beauty of a flower or of a landscape. As for Entomology, the idea is quite a novel one to most of them. I have inquired of those who ought to know: no one has ever heard of a Brazilian ever giving any attention to the wonderful forms of insect-life at his very doors.

My health is again most excellent. I am up often before the sun, have a thoroughly good bath every morning, and am always in bed before ten. Gray, too, is well, much better than he was in England. Since we have been here we have visited on mules or on foot most of the neighbouring valleys, the different waterfalls, special points of view for sweep of landscape, the Botanical Gardens, and the virgin forest. I cannot attempt to describe the views, my stock of expletives is all exhausted; but the scenery alone is well worth all the journey to Brazil and back again; indeed it is I believe acknowledged by all who have had the opportunities of comparison that it is among the first and most *beautiful*, not of course the grandest, in all the world*.

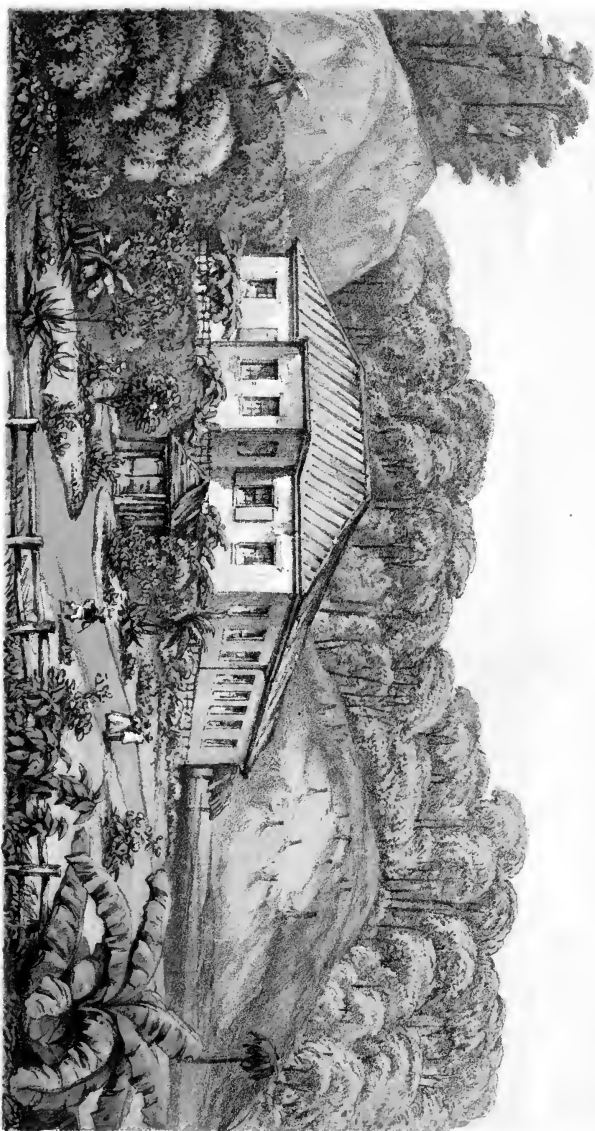
* "It is quite impossible to express the feelings which arise in the mind while the eye surveys the beautifully varied scenery which is disclosed on entering the harbour,—scenery which is perhaps unequalled on the face of the earth, and on the production of which nature seems to have exerted all her energies. Since then I have visited many places celebrated for their beauty and their grandeur, but none of them have left a like impression on my mind. As far up the Bay as the eye could reach, lovely little verdant and palm-clad islands were to be seen rising out of its dark bosom, while the hills and lofty mountains which surround it on all sides, gilded by the rays of the setting sun, formed a befitting frame for such a picture. . . . Ceylon has been celebrated by voyagers for its spicy odours; but I have twice made its shores without experiencing anything half so sweet as those which greeted my arrival at Rio."—*Gardner's Travels in Brazil*, p. 3.

I wish the people came up to their country : the nation is *advancing* in civilization, and this is the beginning, the infancy of their national life, so it will not do to measure them by the standards of nations that are the most advanced. The Emperor and his family are, as I hear from every one, far beyond most of their countrymen ; nothing that deserves encouragement is passed over at the Palace ; and if bribery and corruption among officials exist, Brazil is not unique in this respect, and it can show many illustrious examples of patriotism and innate nobility of character.

Jan. 27, Presidencia, Organ Mountains.

I have just come from the bath ; it is the grey morning, everything is calm and cool and delicious. Our luggage has not come, and so I can do nothing with insects ; I have discovered pens and ink, and so till the sun gets into the garden and I can enjoy its warmth I give half an hour to you.

Yesterday a long day's journey brought us here, the weather being fine enough to permit us to enjoy the magnificent scenery through which we passed. From Tijuca it took us two hours to get to the city ; there we did some shopping, and called at our old hotel at Botofogo. At 2 P.M. a little steamer took us about twenty miles up the bay ; then we had fifteen miles by railroad, in all its details English even to its engine-drivers ; then carriages took us another ten miles to Petropolis, and horses brought us on here. We are quite in the country, just as we were at Constancia, only in quite a different part of the mountain-range. The house is full I hear of ladies, all Jewesses, from Rio, whose husbands come up to see them



PRESIDÊNCIA NEAR PETROPOLIS.

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every Sunday ; the house is quite full, and we have to be accommodated as we can. My present "bedroom" is a recess papered off with a screen six or seven feet high from a passage which is certainly a chief rendezvous of many infants and their nurses ; so I have had but little sleep last night.

Jan. 30.—I have just returned from Petropolis, where I have been to look up Gray ; there was not room here for us both, and so we arranged that I should stay here and he would go to Petropolis, a small town which contains the Emperor's mountain palace, and try and find accommodation there. He is in a respectable Brazilian hotel, with capital rooms, far better than most of those at Presidencia ; but there is no one on the premises who can speak a word of Latin, French, or English. He takes it all very philosophically, says he gets everything he wants without trouble, and has found out some pretty and productive footpaths among the hills : so we stay where we each are for about a week, and then join company again.

As for me at Presidencia I am the only gentleman in a house containing six or ten ladies. I do *not* get everything I want without trouble, although every one speaks more or less of English ; but the walks round the house make amends for everything, even in rain I can under an umbrella pick up several curious insects.

This is a pleasant boarding-house in the very midst of the wood, with virgin forest on all sides of us, and plenty of insects even in the rainy season. I have been out two or three evenings, hardly with the expectation of getting anything, but for the sake of seeing the fireflies. It is no figure of speech to say that on still evenings, especially

after a rainy afternoon, they eclipse the stars ; their lights are of all sizes and magnitudes, and more than one colour. The large *Elateridæ* of the genus *Pyrophorus* have a brilliant, steady, and very bright light : these are difficult to catch, inasmuch as they sail slowly round the tops of the high trees, looking exactly like wandering planets ; others, smaller but of brilliant lustre, fly hither and thither among the brushwood (also *Pyrophori* perhaps, at all events *Elateridæ*, and not *Lampyridæ* like our English glow-worm) quite within reach of one's net ; only to rush after their lanterns in the dark would incur the risk of broken bones ; all I can do is to admire. There are other species also, more nearly represented by our English glow-worm, that haunt especially damp situations : on one side of the road leading to the house is a deep gully, conducting a little stream to a small lake of water ; this road, on such evenings, presents a marvellous sight—the whole of the gully is lighted up with thousands of sparks. I am not romancing, they are in thousands ; and the wonderful part of the sight is, that while many of these rank and file evidently wander only according to their individual will, there are others, and these the majority, which keep perfect time and sway in their flashings one with another ! For perhaps twenty yards you see every light (of this *second* set of lights) evenly and slowly flying in one direction ; then all at once in a moment every light will vanish ; in the next moment every light flashes forth again, and progresses in another direction : it is impossible to resist the conviction that all are acting in harmony and conjunction with each other, and that the impulse of forward progression, and then of a momentary obscuration of light, and

then, again, of a brilliant simultaneous flash and another onward movement at another angle, is felt by each individual and directed by one, the leader of the brilliant well-drilled band. The sight (when one remembers that these are insects, and not birds or beasts) is quite startling, so complete is the precision of united action, and so continuous! going on, for anything that I know, all the evening or all night long; I can call to mind no parallel to it, not even an actual parallel in birds or fishes*.

My night excursions have supplied to me a fine series of two not uncommon but handsome and characteristic Brazilian species, one of the *Cetoniadæ* and one of the *Lucanidæ*. There is a little clump of dwarf bushes by the side of the rivulet on which, by accident, I threw my bull's-eye light: I saw a couple of fine beetles, somewhat allied to our stag-beetle, which had just alighted on an

* Since my return to England I have made inquiry at one of the meetings of the Entomological Society (May 1, 1865, see Proceedings) as to whether any members of the Society who had visited tropical countries (and there were several present) had ever witnessed a similar scene; it seemed to be entirely new to all of them. As it must have been observed by any entomologist who had ever spent a few days in the Organ Mountains, I applied to my friend Mr. Alexander Fry, who, in knowledge of the Coleoptera of the southern region of the Brazils and in the practical experience of their habits, which he had gained by careful examination of them during several years' residence in Rio Janeiro, is among European entomologists *facile princeps*; and he entirely corroborated the observation noted above. He replied (see Trans. Ent. Soc. Lond. vol. ii. part 5, p. 100), "I can confirm your observation that the fireflies of the genus *Aspisoma* of Castlenau flit at night in great numbers over low-lying damp fields, chiefly near water, emitting light by short flashes at intervals of three or four seconds, the majority keeping time with each other as if in obedience to the baton of a leader."

outside twig, obviously with some distinct intention. I let them alone, and watched them; they travelled quickly along the twig, down the branch, down the stem, till they got nearly to the ground, and then I discovered their object; the little stem was bleeding, giving forth gummy sap from some cracks in the bark: round this were collected three or four specimens of beetles and a few moths; the former I carefully secured; and by marking the bush and searching during daylight for others like it, and then examining each occasionally when the weather invited an evening stroll, I managed to get a fine series of examples.

I think I never mentioned to you one of the interesting sights that we always took care to inspect whenever we ascended the aqueduct road from Botofogo. There was near the road-side a large tree standing by itself in the sunshine, towards the top of it a branch had been torn off by the wind, and the wound gave forth a stream of dark resinous sap which ran nearly down to the ground; this resinous sap was a very favourite haunt of Lepidoptera and Coleoptera, and indeed of all Orders. The butterflies were the most showy visitors, of course; they were not the smaller weakly winged species that haunt the footpath, but magnificent fellows, with wings almost as strong as a bird's, that swept down from the heights above and condescended to approach the earth only to visit some hospitable tree like this, which is keeping open house to all the insect world. Of the beetles, the most prominent were splendid large species of the longicorn genera *Trachyderes*, *Lissonotus*, &c., very common but very handsome; besides these were dangerous-looking giants of Ichneumons and smaller Diptera, &c., without end: but alas! though the

visitors to the tree were so abundant, they were unavailable for us ; the sap was unfortunately in the blazing sunshine, and this made every creature so alert (and withal many were so high up the trunk) that we soon found that to capture them was hopeless. But I always made a point of visiting the tree : by creeping up slowly and keeping as much in shade as possible I could watch the revellers without causing much alarm ; the tree was manifestly a well known luncheon-room for all insects whose morning duties led them into that part of the forest ; they kept coming in from all quarters and going away in all directions : the big butterflies were fussy and unneighbourly, running up and down in the sunshine and disturbing all around them ; the beetles, though lively enough on occasion, were more demure, and sedulously attended to the main object of their visit. I wonder what all those creatures think of each other ; they do not gossip together like ants, but they make way for each other, and the manifestation of alarm by one is at once accepted by all in his neighbourhood. The Ichneumons are unpopular among the insect tribes, everybody gives one of them a wide berth, and interchange of civilities, as between butterflies, are of the curtest ; one big black or steel-coloured gentleman is so obnoxious that as soon as he alights every one in that neighbourhood departs. What a vast deal there is for us to learn ! these creatures, I suppose, have their traditions, or if not traditions (by these I mean, of course, the natural tendencies that they derive from their parents), their own personal experiences. *I* know they are right about those Ichneumons, perfectly right ; but how do *they* know it ? How do those little creatures know that the steel-coloured

Ichneumon would as soon have a luncheon off them as off the gum, perhaps prefer them ! or indeed that he in *his* experience of life visits this tree in the full expectation of being able to get a wholesome meal off one or two flies ? or do they know it at all ? and why, when they cannot endure the shadow of a carnivorous fly, will they permit without difficulty the blundering swing of the antennæ of a *Trachyderes* right across their bodies, or let a big *Papilio* almost walk over them ? There is a degree of discrimination in all these actions that is quite superior to the instinct of, we will say, a *Chlamys*, which on the approach of danger makes itself in an instant exactly like a bit of caterpillar's dung ! That is inexplicable enough, but that is simple and uniform : the rule of life among the *Chlamydæ* is, "if ever you are in the least frightened, roll yourself up as tightly as you can ;" it is their misfortune or their good fortune that the result is that the sight of them would turn the stomach of any respectable bird on the hunt for food. To this rule there is no exception ; a harmless butterfly accidentally touching them would metamorphose them into an unpleasant-looking cylinder just as soon as the touch of my very dangerous finger and thumb. But here, on this gummy tree, the rendezvous of insects, you find something very superior to this ; there is a discriminating power which is always exercised aright, and which seems very much like the result of memory and of experience : certainly the absence of any such discriminating power might be in a moment fatal, putting an end to all experiences ; it is the quick-witted who live, it is the dullards who are food for Ichneumons ; although whence they got their wits I can tell as little as I can tell why the

old hen partridge makes her brood cower down in the stubble at the sight of a distant hawk, while she cares nothing at all for fifty crows or gulls: all that is evident is, that such knowledge is essential to preservation of life, and that such knowledge has been imparted to them by their Creator.

Feb. 9. For the last day or two we have been busy making arrangements for a visit to the Paraihyba, or beyond the river into the Minas country. The ladies here are all so good as to say that they will miss us much when we are gone (certainly we have pleasure in carving for them and attending to their wants at meals; and, moreover, since we have been here, impelled I suppose by a sight of our insect-boxes, all the ladies have turned entomologists): we on our part are giving up very pleasant quarters and society for what I fear may be in most respects the reverse. I shall miss my morning bath much; but we have had towels put up, and I hope occasionally to get a good dip. A bath in the morning seems to give one new life, and an amount of vigour more than the day's work requires; nothing in a hot climate is so refreshing.

We have got four mules, two riding-mules for ourselves, one for guide, and one for luggage; blankets, sheets (I have more than a suspicion of the entomology of ordinary sleeping-rooms such as we shall meet with), knives, biscuits, brandy, towels, a change of clothes, and insect-apparatus. We propose to travel slowly, so as to have time every day for some collecting.

Feb. 13, 1857, Paraihyba.

I try to keep up the custom of writing a few lines to

you from day to day; a three days' journey has brought us to this place. I am stiff in muscles of legs but thoroughly well; this mode of travelling has much to recommend it; if time is no object and money and health all right it is capital: there ought to be no trouble (*we* have had a good deal), there is a perfect freedom from restraint and care: we are in all respects our own masters; we halt when and where we like, and travel each day as long as we like. But the Presidencia people have not been careful in their selection of a guide and muleteer for us; we have one who is much more of a mule than his beasts of burden: we amuse ourselves by doing his work, grooming, drying saddles, &c.; and he amuses himself by doing our work, looking about him: a good horse-whipping would exactly suit his malady; but I don't feel able to administer it, as we cannot speak Portuguese.

At four or five o'clock in the morning I am generally up, and rouse out Gray and our idle Antonio; then the animals want feeding and grooming; then breakfast (coffee and bread) has to be looked after: we strap up and generally are in the saddle by six o'clock. We travel till about noon, and then look out for some decent-looking place where we can get food (black beans and farhina) for ourselves and milho for our cattle; as soon as the latter are rubbed down and turned out to pasture, and we have had something to eat, we set forth on our wanderings until dusk, and then the work of Antonio, our lazy attendant, has to be seen to, for he never sees to it himself: the mules have to be gathered in and tied up for the night, with plenty of food and bedding; after all is done, we are ready to turn in ourselves. Respecting the sleeping-accommodation, the less

we say about it the better perhaps ; with the help of our own supply of blankets and sheets as a covering over everything, and our "flea-bags," and also plenty of active exercise during the day, we sleep through everything well and soundly. The common food of the country is of course common fare, but wholesome enough, and to good appetites acceptable. There is no difficulty at all in travelling like this, if only you can get a good, active, and responsible guide ; almost everything depends on this.

A word about these negroes, whom I meet in crowds everywhere ; one cannot help noticing them, especially a new arrival from England like myself, they are so utterly black and ugly of feature, many of them however being stately in form and splendidly limbed ! Who they are and what their origin I cannot tell, no one can tell ; but their present condition, and their position among other humanities, is a much more practical question. Of course we all admit that slavery in theory is an abomination ; and, especially if we look at it from the peaceful unworldly English-parsonage point of view, it deserves some very bad names indeed. We should be untrue to ourselves and to the noble efforts our fathers made to clear the fair fame of the English nation from all taint of slavery, if we were anything else than fierce theoretical denunciators of man-traffickers and man-owners. All this I felt, and feel now, when, for the first time in my life, I have an opportunity of seeing with my own eyes ; but now that I begin to use my eyes and to ask questions of, and to talk freely with, others to whom the subject has been tested by the experience of many years, I have somehow a conviction that the

question of slavery is not so thoroughly simple as it once appeared to me : theory and practice are two very different things ; not only do they often disagree, but it would seem as if it were seldom the case that they could by any possibility harmonize. It would be hardly fair to judge of the symmetry or the truth of an abstract theory by arrainging it before the bar of men's actions or habits ; so, on the other hand, it would scarcely be necessarily a conclusive settlement of the question if in dealing practically with a practical matter we subject it only to the conclusions of abstract theory. Now of all questions slavery is one of the most *practical*—it deals with the lives and happiness of multitudes of black people, and with the actions of thousands of whites ; it has to deal with customs and habits which are wellnigh stereotyped ; it has to consider the innate character, the ability, the different degrees of development of mind manifested by the black when in a state of freedom when in Africa, and when in a state of slavery as here. Some conclusions I have no difficulty in arriving at in my own mind,—the opinions, as far as I can hear them, of all unprejudiced men here who have given any attention to the subject :—

That negroes, if left to themselves, never can raise themselves in the scale of humanity ; they never have done so, and never can. Their children seem to be bright enough (as clever as ordinary European children) till the age of eleven or twelve ; but then, when the body develops, the growth of the intellect stops, and they are in mind to the end of their lives not much better than children.

That negroes when subject to the influence of white

men, as in slavery, are really somewhat improved by the process of discipline, and in no ways deteriorated.

That the physical condition of slaves in Brazil is one on the whole of comfort and enjoyment, and not over-work; it is only the English who are hard task-masters.

That it is inconceivable how any community of whites or of blacks could prosper and advance in civilization if negro blood had any control of affairs.

That, with few exceptions, the negro slave who is cared for by his master is better off than the freed slave who is his own master: both are, as it were, indolent and improvident children; the one does a little work and is well looked after, the other works only by fits and starts or is idle altogether and starves.

Well, I give you the difficulty as I find it, believing that you with me will see that it *is* a difficulty. Slavery is not a subject that theories can defend; but then I hardly think it is one that theories (except those that are *very* one-sided) can fairly attack. I suppose the sale of another man's body for money may pretty well be ranked with the sale of indulgencies in the Roman Catholic Church, or in our Church, in the receipt of fees for the Sacrament of Baptism which was sometimes heard of twenty years ago, or with our payment for the occupation of pews in church. Of all these, one seems about as morally righteous as the others; perhaps of the two (inasmuch as one deals only with the body primarily and the spiritual interests secondarily, and the other with the spiritual interests primarily and the body secondarily) the English customs which once existed, or which now exist having not yet been abolished for ever as slavery has, are the *worse*!

Nay, indeed, we need not go far to find in free England the absolute counterpart to slavery; Mayhew's 'London Labour and London Poor,' Dickens's 'Oliver Twist,' Hood's 'Song of the Shirt,' and many other revelations tell of a grinding flinty-hearted despotism over overworked English white slaves that the Brazilian slave-owners never can approach. Mind, I do not for a moment suppose that all these parallel cases in the least tend to prove that slavery is right theoretically; all that they show is, that theory, if accepted as the sole guide in matters essentially practical, is very unsafe.

Now where does all this land us? not in the acceptance of slavery as a thing that ought necessarily to be, because it is, but in a conviction that an empire like Brazil which permits slavery has to deal with a very difficult question, of which it is not at once obvious that our solution of it, the total and unconditional manumission of all slaves, was necessarily the wisest or the most humane.

I had a conversation the other day on this subject with a thoroughly good conscientious Englishman, a new comer like myself, which interested me much; he took the usual humanitarian view, and talked well and earnestly; but somehow he failed to convince me that the matter lay in a nutshell, as he would have it. He argued thus, that they, the negroes, were like us descended from the loins of Adam (I did not interrupt him at this stage), that they were our brothers and sisters after the flesh, that blood-relationship involved not only reciprocal duties but an equality of rights, that just as much and no more could be said in favour of the white man dominating over the black, as of the black man reducing to subjection the

white, and this entirely without any reference to comparative moral condition or state of civilization ; my companion would decide the whole subject by the one simple fact, as it seemed to him (simple theory, as it appeared to me), that an absolutely perfect equality existed between man and man through the length and breadth of the globe.

I reminded him that he would hardly like to push this theory of his to its legitimate consequences ; and then asked him whether in his parish at home he considered that the day-labourers or the workhouse paupers were as well qualified to care of him as he to take some oversight over them ; as, for instance, at Quarter Sessions, or in the Board Room of the Guardians of the Poor. No, by no means ; they were incapable of judging for themselves, were specially liable to be influenced by narrow motives : he for one would be very sorry to see such a set of men having anything to do with the law but to obey it. But for the life of me I could not make him see that this was just the principle that underlay the whole question of slavery : if his dependents at home have no rights as to self-government, then these dependents here *may* have no rights also ; if the more uncivilized of English are unfit to take charge of themselves, *a fortiori* surely the grown up children of Africa, whose intellect is an utter blank, may be presumed to be unfit also. If you allow this, I do not say you allow slavery, but you allow that something may be fairly urged in defence of slavery ; for after all it is not the institution itself, but the mode of regulating it and administering it, and qualifying or intensifying it, which is the practical question. Slavery is but a name ; the thing exists in many

many cases where the word is unknown: the institution itself may have full force, and yet every one under its influence enjoy as much happiness as falls to the lot of many freemen*.

Carpenter's Hotel, Petropolis,
Feb. 21.

We are staying for a few days in a second-rate sort of lodging-house or hotel, the only recommendation of which is, that the master is an Englishman. We got safe back from our Paraihyba expedition; the weather is so bad that we are glad to get to any shelter at all. I saw the other day a really large specimen of a snake; we were riding along very early in the morning by moonlight to avoid the midday heat, when between my mule and the side of the

* Humboldt, in his 'Cosmos,' writes on this point—"By maintaining the unity of the human species we at the same time repel the cheerless assumption of superior and inferior races of men. There are families of nations more readily susceptible of culture, more highly civilized, more ennobled by mental cultivation than others; but not in themselves more noble. All are alike designed for freedom. * * * 'If,' in the words of Wilhelm von Humboldt, 'we would point to an idea which all history throughout its course discloses as ever establishing more firmly and extending more widely its salutary empire—if there is one idea which contributes more than any other to the often contested, but still more often misunderstood, perfectibility of the whole human species—it is the idea of our common humanity, tending to remove the hostile barriers which prejudices and partial views of every kind have raised between men, and to cause all mankind, without distinction of religion, nation, or colour, to be regarded as one great fraternity, aspiring towards one common aim, the free development of their moral faculties.'"—HUMBOLDT, *Cosmos*, Sabine's edition, vol. i. p. 355. There are few that will not agree with most of this; it points to the ultimate goal, not to the practical efforts which we in our generation may wisely make in order that the goal may some day be reached.

road under a bank I was conscious of a body on the ground moving past me ; it was quite light enough to see that our mules had hedged in between themselves and the bank a large snake, I should think about twelve or fifteen feet long. The beast had no difficulty in getting ahead of us and disappearing on the other side of the road ; it seemed about as thick as one's knee-joint, and to progress, not as I had supposed by a wriggling eel sort of movement, but as if impelled by some inner machinery, almost without wriggling its body at all ; it was an ugly sight to see in the cold moonlight, and I was as glad as the beast was to part company.

The roads are truly abominable ; they are in parts one continued mass of churned-up clay : the only guides that we have as to how deep the slough is, whether inches or feet, is an occasional branch of a tree stuck upright in the middle of the road ; that means that the quagmire is so deep there that it is dangerous for man or mule, so we all give the branch a wide berth. We passed on our journey dead bodies of mules killed by the badness of the roads, as well as hundreds upon hundreds of living mules, each with their two bags of coffee or other produce. It is curious to see how clever the mules are ; of course every now and then one comes full tilt with one's knee against their load, but generally the old experienced mules know to an inch the breadth of space that the burden on their back requires, and if left alone they take care that there is space enough to pass. No one, except on compulsion, travels in the rainy season, and so there is small wonder that we meet only mules and their drivers ; but at the best of times the road, as being the great highway from

the capital to the richest province of the interior, is very bad and discreditable. No real progress can be made by the nation in wealth or in civilization till the means of intercommunication are infinitely improved.

The views round Petropolis are as fine as any that I have seen, and the walks by the forest-clearings are productive of many insect spoils. We are rather troubled out of doors by a species of tick, *Carapatas* the natives call them; they abound in the grass and on the shrubs, and if they have a chance, as they often have with me, they fasten themselves on the skin; every time I beat bushes into my umbrella I get scores of them.

The frogs and toads here are numerous: one huge fellow I met taking a walk the other evening; he would just about fill my wide-awake: he was not at all perturbed at meeting me; we quietly contemplated each other, and then went our several ways. The noises that some of them make at night are wonderful, as you may imagine when you remember what our little frogs in England can do, and compare their size with that of the species here. There is one large species called "the Blacksmith," from the peculiar clang or ring of his note; the effect when a couple of them are giving utterance is exactly that of an anvil being rapidly struck by a blacksmith or two in full work: the sound may be heard at a considerable distance, and stands out from all other forest night cries.

I have been much interested in watching a small colony of soft-bodied ants which I discovered near this place; they live only under the surface of things (whether it is their manner of life that gives character to their bodies, or the soft unarmed nature of their bodies that determines

their mode of life, I cannot tell); they travel about, but wherever they go they construct little tunnels, or arched concealed roadways for themselves, and never permit themselves to see the light of day. One small colony of these ants was bent upon climbing the trunk of a certain tree in this neighbourhood, and was building up an arched road with substance that looked much like mortar, about the thickness of a cedar pencil; I could trace this tunnel for some yards along the ground, but failed in discovering any nest or special headquarters of the colony. The little ants constructed at the rate of three to six inches every twenty-four hours: they work from the inside of course, and I could see generally two pairs of little jaws with fore-legs hard at work just in the inside; the same jaws were at work for several minutes, and thus I presume had stores of building-material brought to them by others within the tube. If I broke an inch or two away in the tube, the little workers always had it made good the next day. On one occasion I put two pins, firmly fixed in the tree, across the open orifice; they built right up to and between these, but finding that they could not get beyond them, they actually took down a little bit of the side wall and made a bend in the direction of the tunnel, working round the obstruction, and then continuing upwards again.

What a comfort it is to hear sometimes of a sensible man, who has both opportunities and refined tastes with which to avail himself of opportunities! I have heard much of an Englishman, Mr. Alexander Fry, a Rio merchant, who has been in the country for many years, and who spends his spare time and holidays in the study of natural history; they tell me, what is likely enough, that

he knows the insect world of this province better than any other man living, and that his collections are wonderful. I have no doubt but that the pursuit of these simple tastes has added much, not only to his collections, but to his happiness and health, and certainly infinitely to his usefulness in his day and generation.

Mr. Fry has relatives who have a house in Petropolis, to which they come in the hot season; I have been happy in making their acquaintance, and hope to obtain through them an introduction to Mr. Fry; he is now living near London.

We have had a case of yellow fever in this house. An English lady came up from Rio three or four days ago not quite well, in fact she was then sickening with the fever: at 6 yesterday evening she was just unwell enough not to come into the saloon for tea; at 10 P.M. the doctor was sent for; at 3 A.M. this morning the crisis was over, and she is out of danger; but six hours only have so reduced her that she can hardly speak, and the effects of the attack will last for weeks. As to infection, it seems to be nothing at all at this height above the sea; no one here catches it from others (at least this is the assurance with which every one consoles his neighbours); persons may bring it up from Rio with them, and be taken with it here, and die, as indeed they often do, but no one here catches it from another. This evening two French women are dead who were well in the morning; they, too, have just come from Rio, and brought death up with them.

* * * * *

I am your affectionate Son,

HAMLET CLARK.

*To the Editor of the 'Zoologist'**.

Petropolis, February 18, 1857.

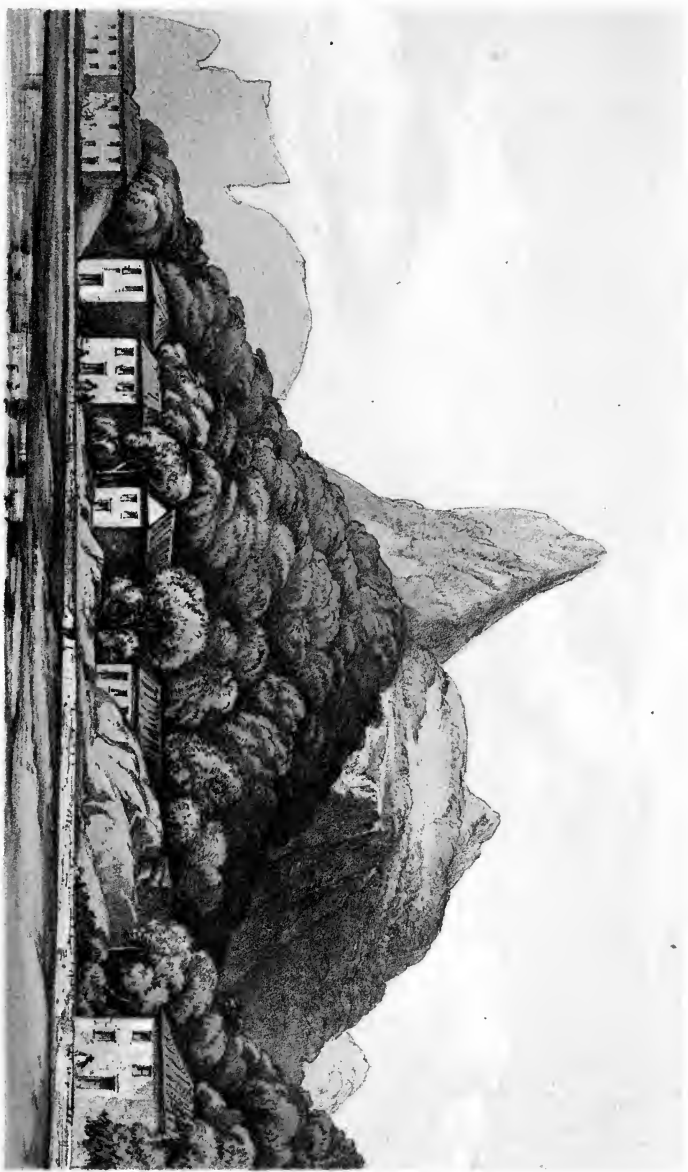
When my friend Mr. Gray and myself were making arrangements in England for an entomological visit to the province of Rio Janeiro, we experienced difficulty in obtaining information with regard to our proposed collecting-ground: it is true several works of travels in the Brazils have been published, one or two of them valuable; but none of them, except that of Brullé and that of Perty, so far as I know, refer to entomology: a complete or a general work on the entomology of Brazil is still a desideratum: in the absence, however, of more extended details and larger experience, perhaps a few notes and memoranda as to our localities and the degree of our success may, if you can find space for them, be of service to future entomologists visiting this beautiful country.

We arrived in Rio early in December, being the commencement of the rainy as well as hot season; this period of the year was purposely chosen by us, as being by all accounts most favourable to insect life. We have now been several weeks examining the entomology of different localities in the province, and are able to form some opinion with regard to the climate and insect productions of the country: and first, let me say a few words as to its apparent salubrity. When in England we heard much of the ravages of yellow fever, and since we have been here

* Reprinted from the 'Zoologist,' May, 1857, p. 5561.

this fearful disease has been more prevalent than during any previous season since that of its first appearance ; its ravages, however, are confined to the unhealthy parts of the city, and especially perhaps to the shipping ; it is on this account real cause for anxiety to permanent residents in Rio ; and hence fresh comers should at once for a time leave the lowlands near the shores of the bay, where little can be done entomologically ; but to persons residing in the country or in the Organ Mountains there is as little cause for alarm as if they were in England. In all other respects the country still deserves the character it had before the introduction of yellow fever,—that of being one of the most healthy climates in the world. Let the traveller use only ordinary common sense, let him not expose himself unnecessarily to the rays of the sun, be careful to avoid excessive fatigue, and abstain from ardent spirits, then he will, humanly speaking, enjoy as vigorous health here as he has done at any portion of his life.

The following are localities at present visited by us, which deserve notice as entomological stations :—the Corcovardo Mountain, Tijuca, Constancia, Presidencia and Paraihiba : the two first are immediately above Rio, Constancia and Presidencia are in the Organ Mountains, and Paraihiba on the river of that name. An hour's walk from Botofogo, a suburb of Rio, where there are excellent hotels, is sufficient to reach the foot of Corcovardo, a well-known mountain some 2,200 feet high ; its collecting-ground consists of a broad walk at the side of the famous aqueduct three miles long, which runs for a considerable portion of its extent through virgin forest. Colcoptera are captured here as elsewhere by beating



J. Gray, del.

Day & Son, limited, lith.

CORCOVADO FROM BOTO FOGO.

bushes, or, when flying, by means of an ordinary ring-net ; although several new species each day were the result of our collecting here, the locality was not so interesting as others, inasmuch as from its propinquity to the city it has been more carefully examined, and the species taken were better known : on every day that we visited it we met collectors, principally blacks, employed by dealers in Rio ; these blacks without any superfluous clothing carried in one hand a ring gauze-net on a thin bamboo pole 20 or 30 feet long, in the other hand a strip of some soft wood stuck over with rude pins ; this was all their apparatus ; when they discovered any "*bicho*," either Lepidopterous or Coleopterous, above the ordinary size or brilliant in colours, they gave chase, and if successful skewered their capture to their slip of wood or to the outside of their cap : many of such collectors we met, but not a single entomologist. Entomology, as a science, is hardly known ; with the one exception of Mr. Alexander Fry, whose splendid collections are still spoken of by every one here who knows what entomology means, we have heard of no one who either himself or by others is seeking in any degree to become acquainted with the Fauna of the country. Notwithstanding, however, the number of collectors who are to be met with along the aqueduct, this locality well deserves the careful attention of the entomologist ; granted that the larger species may be known, and may be found in European cabinets, there remain countless minute species disregarded utterly by those whose only object is to make up show-cases for the drawing-room, many of which doubtless will prove altogether new to science, and very interesting.

Tijuca is a scattered hamlet situated at a height of about 1000 feet on a spur of the Corcovardo range, facing the sea, at a distance of ten or twelve miles from Rio: as an entomological locality it disappointed us: the hills surrounding it are generally cleared of forest and converted into coffee-plantations; owing either to this or to some other cause, insects of all orders are scarce, or in truth for the most part entirely absent. The labour of several days here failed in securing as many species as could have been collected in the same time in the poorest district in England. There is, however, one locality, within an hour's walk of Mr. Bennett's hotel at Tijuca, which is a decided exception: a road from Tijuca to the Botanical Gardens near Rio passes through coffee-plantations for three miles up to the head of the valley, and then descends through virgin forest towards the sea-coast to the gardens. The part of this road that runs through the forest is so full of insect-life, that of itself it will well repay a visit to Tijuca; and this suggests one rule which, so far as our experience goes, universally obtains,—roads through, or the open sides of, virgin forest are *always* good collecting-ground; cleared country, milho- or coffee-plantations, even the second growth of timber, are seldom profitable, often absolutely barren: we have found everywhere that this distinction holds good. In England fine green luxuriant bushes by the road-side, coppices of wood fifteen or twenty years old, are excellent localities; here such contain next to nothing, compared with what may be found at the margins of virgin forests, places where the original growth has never been touched by man.

It is however in the Organ Mountains, richest in vege-

tation, most lovely in scenery, most healthy in climate, that we have found the best stations for the entomologist: such stations may of course be multiplied indefinitely; I notice two, both most excellent, accessible, and, so far as we can learn, both up to this time almost unexplored: Constancia is an excellent English boarding-house, kept by Mr. Heath, in the heart of the Organ Mountains, two days' journey from the city in a northerly direction; and Presidencia as comfortable a home for the English traveller, kept by Mr. Land, thirteen leagues from the city in a north-west direction (three miles from the German colony Petropolis, where the Emperor has his summer palace); both these, at altitudes of about 3000 feet, are in the midst of primeval forest, and would require for their examination years instead of months: I notice these two, not to the exclusion of other equally profitable localities, but because I know how much remains still to be discovered in each, and at the same time that the traveller will in them be sure to meet with English comforts and an English welcome.

Paraihiba is a city three days' journey from Rio, on the Minas road; it is healthy, although its situation is low and the heat intense. The immediate neighbourhood is covered with large coffee- and also rice-plantations, and consequently an entomological desert. At the time of our visit the fine river was swollen with the recent rains; but doubtless its banks during the dry season would well repay research. There are two tolerable hotels: the Hotel Universal, kept by a respectable Englishwoman, is the best, but of course with only Brazilian accommodation; and some time might profitably be spent here in making

excursions in different directions into the country on either side of the river.

Although every locality seems (as is to be expected) to have its peculiar character of insects, yet generally, through our entire excursion during this the rainy season, we have found some orders everywhere abundant—some strangely scarce. Diurnal Lepidoptera abound, and are indescribably beautiful; it has been hard indeed to devote one's exclusive attention to any other group, when these exquisite insects are flitting around in the not more brilliant sunshine. I hardly know how far the Papilionidæ of the Organ Mountains have already received attention; but I am sure that if some of our English Lepidopterists could have seen them, in sunshine, in shade (in masses of tens and twenties by the margins of forest streams) they could not have been satisfied with simple admiration: words are wanting to convey any impression of their fresh beauty. Moths, especially minute species, are common by beating, and during the short twilight of evening: a little experience that we have had of sugaring by night proved that it was as effectual here as in England. Hemiptera are by no means abundant; Diptera appear to be almost confined to those abominations, sandflies, musquitos, and "*Borrachudos*," a very insignificant-looking atom, which swarms at Tijuca and elsewhere, but which by its bite raises painful inflammations on the face and backs of hands. Hymenoptera are decidedly rare: of bees, although we have been at pains to capture all that we have met with, I do not believe that a dozen species can be found in our united collections: this is perhaps to be attributed to the unprecedented amount of rain that has lately fallen.

The ants are very numerous and most interesting : some species construct covered galleries among the branches of trees ; others burrow, *for miles*, six or ten feet below the surface of the ground ; some are carnivorous, and seem to live principally on insects ; others are vegetarians ; one species in this neighbourhood is welcomed as a friend to the housekeeper, for when it marches through a house not a single cockroach or spider is left behind it alive ; at Constancia and other localities there is a species which, in a single night, will strip a large tree of every leaf. In the forests on the Corcovardo range, we heard of (but could not see) an ant which constructs its nest above ground five or eight feet high ; the sides of these nests are constructed of clay, worked up by mastication, so that after a few years they obtain the consistency of porous stone : in this state they have a commercial value ; they are cut up into slabs or blocks, and used for the purpose of lining ovens.

HAMLET CLARK.

*To the Editor of the 'Zoologist'**.

Rio Janeiro, March 14, 1857.

In my last communication (posted on February 25th) I pointed out the localities around Rio that we had visited. I will now notice the modes of collecting Coleoptera that we found profitable, and one or two other points that to a future tourist may be useful.

Modes of collecting Coleoptera.

It would be impossible for any one, without much larger opportunities than we have had, to speak with decision as to the best modes of obtaining species; different localities and different seasons of the year would demand doubtless different treatment: the following are, however, generally the results of our collecting experience during the hot season through the different Serras.

The herbage and undergrowth of plants in tropical countries are, as might be expected, entirely different from what we see in England: there grass and vegetation are short, easily commanded by a sweeping net; here we find it rank and luxuriant and gigantic, so that a sweeping net has as little power in obtaining species from it as it would have among branches of oak or pine at home: some larger substitute must be found. I used at Constancia, and with some success, a large sheet with two poles for beating; but this was heavy and cumbrous, and required

* Reprinted from the 'Zoologist,' July 1857, p. 5649.

one or two assistants. The best instrument was an umbrella inverted; this is light and portable, of easy application, and on the whole the best instrument for collecting. Three well-made, steel-ribbed alpacas will with care suffice for an expedition of three or four months; the seams well stitched, and handles curved (for pulling down branches), and of the same wood as the stem.

Sugaring by night is certainly very profitable for Lepidoptera, ants, and cockroaches, probably also for Coleoptera. Mr. Fry was very successful in attracting insects by the light of a strong lamp; and the species that we have taken by this means are a sufficient proof of its value, although if a coleopterist has his days for collecting he will find it better to spend his nights in rest. Decaying timber is of course valuable; many species of the fine genus *Brenthus* are found under the bark of felled "*Canella Batella*" (a species of tree remarkable for its hard and heavy wood); the diamond beetles on the leaves of, and on the ground under, a wild orange-tree, "*Larangeira do Mato*," easily recognized by the sharp spurs on its bark; and on the leaves of some tree allied to the orange are found several species of Cassidæ.

Milho, if in the sunshine, deserves examination for the insects that bask on its broad leaves, and that lie hid between the young sprouting shoots. Coffee produces nothing, and seems to permit nothing even in its neighbourhood. Felled trees often harbour on their underside shaded from the glare of the sun several species; but logs of wood and stones on the ground are generally unproductive, probably not affording sufficient protection from the fierce heat of midday. Of water-insects I much regret

to say I know nothing, assuming (which I do not believe) that species are abundant here. To collect them is at present impossible; the torrents of rain have turned each brook into a formidable stream, and every valley into a quagmire. I have hardly seen a pond or a ditch since I left England.

Travelling Apparatus.

All insects must be kept in tin cases, as the only means of protection from their three formidable enemies, "*barratas*" or cockroaches, ants, and damp. It will add much to the convenience of travelling if these cases are made in pairs (about $2\frac{1}{2}$ by $1\frac{1}{2} \times 1\frac{1}{2}$ feet, or to hold sets of Downie's middle-sized boxes), one pair to be the cargo of each mule. Two pairs of these will contain boxes, cases of card-frames, bottles of gum, chloroform, spirits of wine, &c., sufficient for a single coleopterist for a journey of four or five months, for a lepidopterist for three. Each entomologist can best tell what details of apparatus he will require; he should, however, certainly possess an etna for killing insects by hot water (ours, that we obtained from Messrs. Adams, Haymarket, are strong and serviceable), a couple of short, stout chisels for bark and decaying wood, and a small tin box for keeping insects relaxed and damp, and at the same time secure from cockroaches. Whatever he will be likely to want *must be brought from England*: nothing, not even gum tragacanth, can be obtained here except at a vast outlay of patience.

As to other matters, he will have to walk over all sorts of ground, with a temperature of from 90° to 120° or even more; therefore stout shoes (or boots, as a protection

against snakes, which abound) and light dress will be appreciated.

Should the entomologist be disposed to travel into the interior, he should if possible obtain and follow the advice of some friend who knows the country. Travelling is perfectly safe; it supplies a never-failing fund of objects of interest; it presents no serious inconveniences: let him satisfy himself that he can live upon the fare of the country—black beans, farhino, and *carne secca* or jerked beef, with occasionally, as a treat, bacon or an old hen; then he will require only time, patience, and money to make his expedition both profitable and delightful.

Assuming that the two former are not wanting, I will notice the third: I suppose that two entomologists are fellow travellers; they will require six mules—two saddle-mules for themselves, one for their black servant and guide who attends to the mules*, and three cargo-mules, one carrying their second suits of clothes, boots, blankets, stock of tea, small supply of brandy, and other personal requisites, the two others entomological boxes and stores. These mules must be bought, at prices ranging, according to the locality and demand, from 150 to 300 milreis. I say they must be bought; for if hired (as they *may* be) the amount of hire for a journey of only three weeks will

* The choice of a proper person as servant will be the only serious difficulty likely to present itself; as a general rule it will be better to have a freed black and not a slave, inasmuch as the latter at a distance from his master may turn indolent and refractory. However, the traveller should obtain the advice and aid of some resident Englishman. Mr. Bennett, of Tijuca, the proprietor of the boarding-house there, would be well competent and, I doubt not, willing to render any assistance.

exceed the amount of purchase-money ; but when bought they will fetch at the end of the journey, however long, supposing that they have been tolerably cared for, at least two-thirds of the sums that were originally paid for them.

With the mules must be bought also bridles, saddles, and knee-boots (if not brought out from England), also pack-saddles, hide-coverings and halters for the cargo-mules. The outlay account then will stand as follows:—

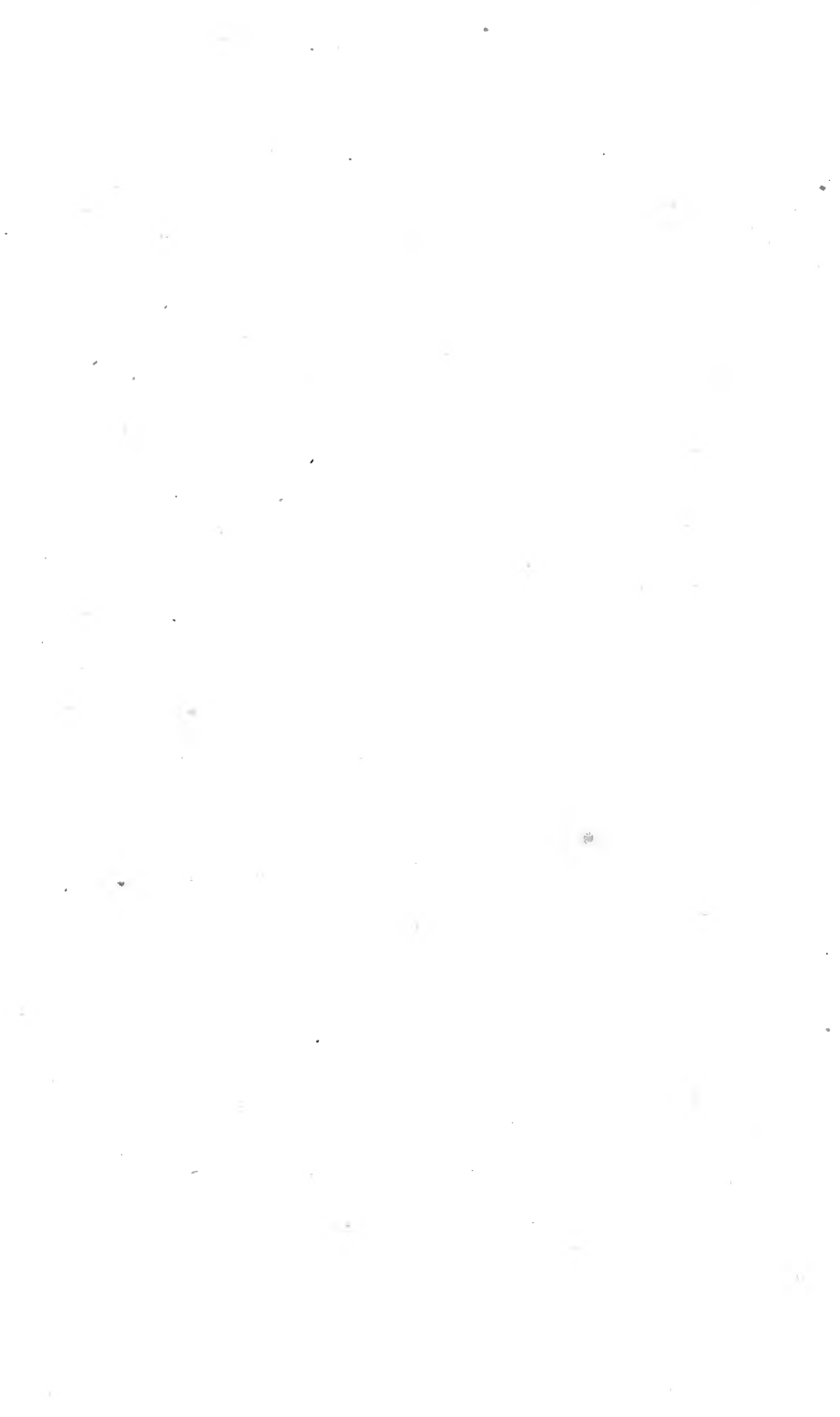
	Milreis.
2 saddle-mules, at 250 milreis	500
1 saddle-mule, at 180 ditto	180
3 cargo-mules, at 200 ditto	600
Mule furniture	100
	<hr/> 1380

making a total of 1380 milreis, or say about £150: of this at least £100 will be repaid at the end of the journey by the sale of the animals, leaving £50 as the total expenditure and loss on the purchase account. The daily expenses will be on the average

	Milreis.
Food, milho and grass, for mules	6
Dinner, supper, and bed for two	6
Black's food and bed	1
	<hr/> 13

Of this, which is a *high* estimate, the expenses of personal board and lodging may with ease be saved, if any sort of introduction is carried to the proverbially hospitable Brazilians of the interior. I have been assured by many that often they have found it impossible to spend any money at all.

HAMLET CLARK.



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